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ABSTRACT

Using data which commences with the 1977-78 university fiscal year, and ending with the most current year for which information is available, the financial position of Ontario universities was assessed. The budgetary priority assigned to Ontario universities has declined steadily and substantially over the past 14 years despite a consistent growth in governmental expenditures and a growing provincial economy. Ontario's spending per university student had been consistently below the national average, and is inconsistent with the province's overall wealth. In comparison to the United States, the Government of Ontario has accorded university spending a lower priority than many states, and while Ontario grants to universities barely kept pace with inflation, appropriations in some states grew by 35-40 per cent. Additionally, the significant increase in research activity achieved by Ontario universities has gone largely unrecognized by provincial government in its provision of university operation support. Particularly affected have been library acquisitions, employee benefit packages, buildings and grounds, and assets. Given the enormous demand for university graduates expected during the years ahead, the time has come for political rhetoric and budgetary priority to come together. This report's data are presented in 19 figures and 24 tables. An appendix provides an update of the Ontario University non-salary price index. (JB)

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THE FINANCIAL POSITION OF

UNIVERSITIES IN ONTARIO: 1991

Prepared by
the Research Division
of the
Council of Ontario Universities
Requests for further information
should be directed to
Dr. James A. McAllister
Research Associate (Finance)

Council of Ontario Universities
Conseil des Universités de l'Ontario
444 Yonge Street
Suite 203
Toronto, Ontario
M5B 2H4

May 1991

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The graphical and tabular data displayed in this report commence with the 1977-78 university fiscal year. This base year has been chosen because it was the last year in which the financial advice of the Ontario Council on University Affairs, the Government's advisory body on higher education, was accepted. The data presented end with the most current year for which information is available. This varies according to the subject matter being described. It is possible that different conclusions might be drawn from some of the data were more current information available.

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THE FINANCIAL POSITION OF UNIVERSITIES IN ONTARIO:

1991

Universities as a Priority in Ontario

Notwithstanding the apparent importance attached by successive provincial governments to this province's universities, the budgetary priority assigned to their funding has declined steadily and substantially over the past fourteen years. This is reflected clearly in the fact that not since 1977-78 has the funding advice of the Ontario Council on University Affairs, the government's own advisory body on universities, been accepted.

As can be seen in Figure 1 and Table 1, the universities' share of total government spending has declined from 5.92% in 1977-78 to 4.09% in 1991-92. Over the past year alone, the universities' share of provincial government spending declined a further 0.23%, the equivalent of a loss of almost $108 million. *The shift in priorities since 1977-78 now costs the universities over $870 million a year in operating grants.* This represents some 45% of total government operating support to universities.

The provincial government's own expenditures have consistently grown faster than government grants to universities. In 1991-92, grants to universities have increased by 8.0% while total provincial budgetary expenditure is projected to rise by 13.4%. As Figure 2 and Table 2 display, the government's total expenditures have increased at a rate a third faster than its grants to universities.

With the exception of the recession years of the early 1980s and the early 1990s, the provincial economy has also consistently grown faster than university operating support. Figure 3 and Table 3 use the growth of the Ontario economy as a benchmark against which to measure the growth of Ontario government expenditure and operating grants to universities. While Ontario government expenditures have consistently grown at or above the rate of growth for the economy of the province as a whole, between 1977-78 and the late 1980s

operating grants to universities expanded only 75% as much as the economy of the province.

While other publicly supported sectors have enjoyed real increases in their levels of support per client served, the position of Ontario universities has declined. Figure 4 and Table 4 show that hospitals, elementary and secondary schools, and institutions for adult offenders all have seen their per client expenditures increase at a rate faster than inflation. The position of post-secondary institutions, however, has declined. After the impact of inflation is eliminated, hospitals spent over 38% more for each day of patient care in 1988-89 than they did in 1977-78. Universities, in contrast, spent 14% less for each full time equivalent student enrolled in 1988-89 than they did a decade earlier.

As Figure 5 and Table 5 demonstrate, *over a fourteen year period, when the Ontario government increased the constant dollar value of its operating grants to universities by 14.1%, its payments to physicians and other medical practitioners increased by 140.6%*

One other area of provincial government expenditure which has seen significant growth over the past fourteen years is community and social services. Figure 6 and Table 6 display the growth of COMSOC expenditure since 1977-78. While recent budgetary growth is clearly a recessionary response, *COMSOC expenditure (in constant dollars) grew throughout the economically buoyant 1980s by 128.2% through 1989-90, compared with an 8.2% increase for universities over the same period.*

Interprovincial Comparisons

Government support per student to Ontario universities has traditionally been below the average for the rest of the country. Figure 7 and Table 7 demonstrate this point. In 1990-91, it is estimated that Ontario ranked ninth among the ten provinces, or about $750 per student below the average for the other nine provinces.

The relative underfunding of universities in Ontario is inconsistent with the province's overall wealth and with the level of funding it affords to other publicly supported activities. Table 8 compares operating grants to universities according to the relative wealth of each province. In 1989-90, the most recent year for which data can be estimated, Ontario ranked ninth on this indicator with a level of grants 30% below the average for the other provinces. Table 9 demonstrates that in 1987-88, on seven of the eight indicators used by the Tripartite Committee on Interprovincial Comparisons, Ontario ranked below the average for the rest of the country. Table 10 compares the level of funding received by universities in Ontario and the other provinces in 1987-88 with that received by hospitals and schools. While Ontario ranked second in the amount of money that school boards spent per student that year and fourth in the amount hospitals spent per patient day of care, it ranked tenth in the amount universities spent per student.

Relative to its economic growth, Ontario ranks eighth out of the ten provinces in sharing the benefits of its growth with universities. Figure 8 and Table 11 compare rates of growth of operating grants to universities in Ontario with those in other provinces, but with the data standardized to each province's gross domestic product. They demonstrate that while, in the decade between 1977-78 and 1989-90, every provincial government in the country failed to increase operating grants to universities as fast as their respective economies were growing, the Ontario government fell further behind all other provinces except British Columbia and Nova Scotia.

Comparisons With the United States

Across a range of indicators, recent evidence makes clear that many state jurisdictions in the United States have afforded a higher priority to universities than the Government of Ontario has given to universities in this province. Figure 9 shows that, during the twelve years between 1977-78 and 1989-90, the growth rate of state government appropriations for higher education per full-time equivalent student in the United States exceeded the rate of inflation. In Canada, during that same time period, provincial government grants to universities per

full-time equivalent student declined by 15 to 20%. This decline is evident both in Ontario and in the nine other provinces.

Figure 10 focuses the analysis on the most recent seven years of available information and compares Ontario with eleven states which are either among the largest states in the country or are major states in close proximity to Ontario. *While grants to universities in Ontario between 1982-83 and 1989-90 barely kept up with inflation, state appropriations in some American jurisdictions grew by 35 to 40 per cent.*

Figure 11 and Table 12 demonstrate that Ontario universities receive less in the way of government grants than do similar institutions in the United States and that they are unable to draw upon other resources to the same extent as their American counterparts. *Tuition fee revenue per full-time student is 70 to 80% higher at American public universities than at Ontario universities.* At American private universities, fees are about six times as great as in Ontario. *Federal grants, largely for research, contribute twice the dollars per student at U.S. public universities and more than four times as much at private universities than they do in Ontario universities.*

University Income and Spending Patterns

Table 13 indicates that Ontario universities receive a smaller share of their total revenue from the provincial government than do universities in most other provinces. Similarly, they draw a smaller proportion of their funding from the federal government than is the case elsewhere. Revenue from fees, as a proportion of total income, exceeds the average for the rest of the country as does income from other, non-government, sources.

Figure 12 and Table 14 demonstrate that sponsored research expenditures have been growing at a faster rate than have the operating expenses more usually associated with instructional activity. The former have increased by about 75 per cent over the past 12 years, once the impact of inflation is eliminated, while the latter expenses have risen only slightly faster than inflation (and significantly less

than inflation when enrolment growth is taken into account). *The significant increase in research activity achieved by our universities, undertaken in response to national goals, has gone largely unrecognized by the provincial government in its provision of university operating support.*

Table 15 demonstrates that *there has been a 16% decline in the constant dollar value of salaries and wages per student over the past twelve years.* While Table 16 demonstrates an increase in the constant dollar value of employee benefits, it also shows that almost all of these additional costs were incurred in statutory benefits programmes over which universities have little or no control. The constant dollar costs of these statutory programmes increased by 55%. Unemployment insurance premium costs went up by 71% during this period. Figure 13 compares the cost of university benefit programmes with those incurred by the Ontario government. *The provincial government's benefit package is significantly more costly than that provided by universities.*

Historically, non-salary inflation consistently exceeded the rate of increase in the Consumer Price Index. This has not been the case for several years now (see Figure 14 and Table 17). *Library acquisitions were particularly hard hit by inflation.* Consequently, in its operating grants for 1986-87, the Government made special provision for library acquisitions. As shown in Figure 15 and Table 18, this reversed a decade-long decline of 21% in constant dollar expenses for library acquisitions though it did not redress the approximately 30% decline in library acquisitions per student.

Although improvements have been made in recent years (see Figure 16 and Table 19), the long-term and sustained paucity of capital funds has left a legacy of significant capital under-investment in this province's universities. Table 20 demonstrates that *over the period 1977-78 to 1989-90, Ontario universities spent $5500 less per student on buildings and related land and site services than did universities in the rest of Canada.* Had capital funding to our universities over this period been maintained at the average of the 9 remaining provinces, a further $1 billion would have been invested in our deteriorating physical infrastructure.

As a result of a long period of capital underfunding, as shown in Figure 17 and Table 21, Ontario university buildings were depreciating faster than they were being renovated or replaced. For years, *universities have been living off their assets and not replacing what was being worn out.* In 1988 and 1989, for the first time in recent memory, the annual value of capital formation of fixed assets exceeded the value of depreciation. Even if this trend continues, however, it will take many years to redress the accumulated deficits of the previous decade.

Conclusion

The health of our universities continues to be vital to the overall health of our economic and social development. Figure 18 and Table 22 provide some evidence of the economic benefits, both public and private, derived from university training. Unemployment rates among university graduates are about one third the level of those who did not go beyond high school. Participation rates in the labour force are over twice as great for university graduates as for those with eight years or less of education. And all the evidence points to an enormous demand for university graduates during the years ahead. It is currently estimated that fully half the new jobs that will be created in our economy over the next decade will require university-level training. The importance of our universities looms large in the political rhetoric of this country. The time has come for political rhetoric and budgetary priority to come together.

1991 05 30

FIGURES AND TABLES

FIGURE 1

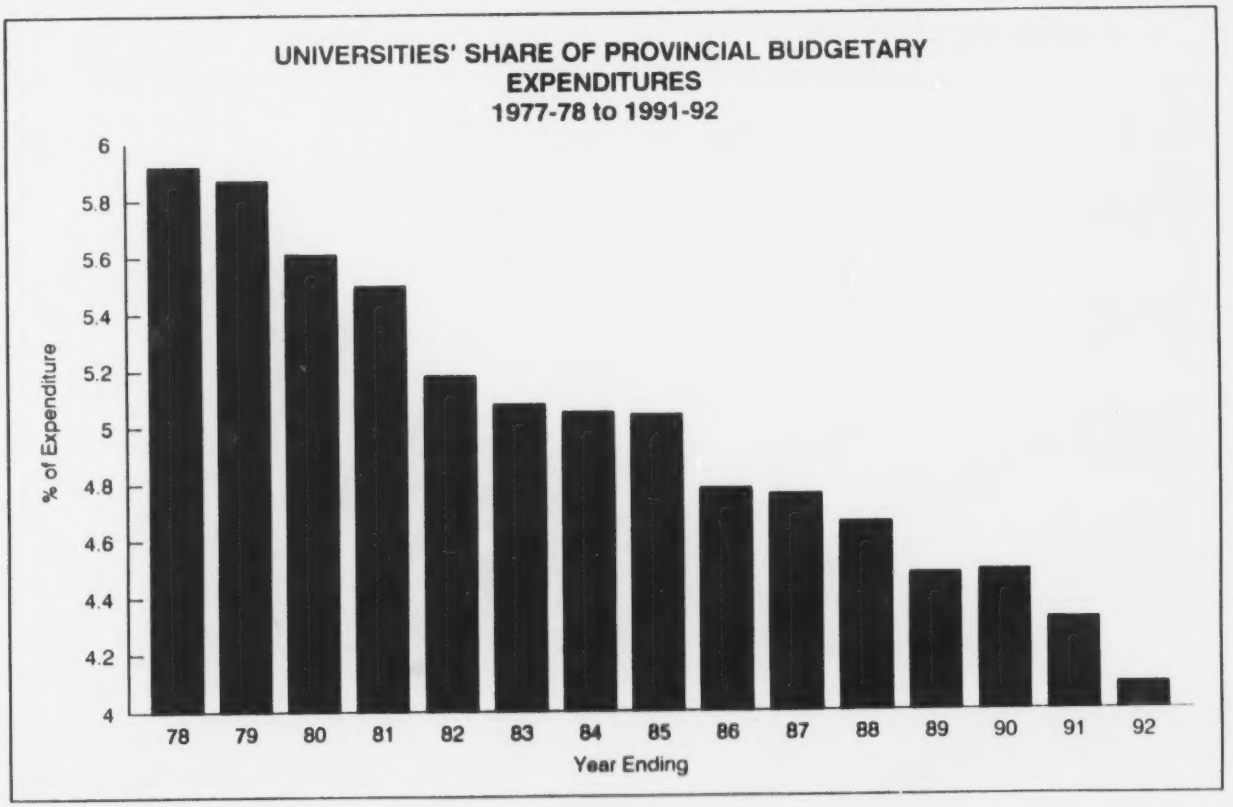
UNIVERSITIES' SHARE OF PROVINCIAL BUDGETARY EXPENDITURES
1977-78 to 1991-92
% of Expenditure
6
5.8
5.6
5.4
5.2
5
4.8
4.6
4.4
4.2
4
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
Year Ending

TABLE 1

ONTARIO UNIVERSITIES' SHARE OF PROVINCIAL BUDGETARY EXPENDITURES (EXCLUDING PUBLIC DEBT INTEREST PAYMENTS)

	Universities' Share	Universities' Annual Shortfall from 1977-78 Level of Government Support		Universities' Annual Shortfall from 1990-91 Level of Government Support	
	%	%	$ millions	%	$ millions
1977-78	5.92	-	-	-	-
1978-79	5.87	0.86	6.5	-	-
1979-80	5.61	5.22	43.1	-	-
1980-81	5.50	7.09	64.0	-	-
1981-82	5.18	12.44	131.2	-	-
1982-83	5.08	14.22	171.7	-	-
1983-84	5.05	14.62	190.5	-	-
1984-85	5.04	14.86	206.8	-	-
1985-86	4.78	19.26	296.9	-	-
1986-87	4.76	19.60	332.2	-	-
1987-88	4.66	21.32	393.4	-	-
1988-89	4.48	24.30	499.1	-	-
1989-90	4.49	24.08	531.9	-	-
1990-91 (interim)	4.32	27.02	674.9	-	-
1991-92 (budget)*	4.09	30.84	871.8	5.23	107.8

Source: Ontario, *Public Accounts*, various years.
1990-91 Expenditure Estimates
1991 Ontario Budget

* Estimates of total provincial budgetary expenditures have been consistently understated. This has resulted in consistently overestimating the universities' share of provincial budgetary expenditures.

FIGURE 2

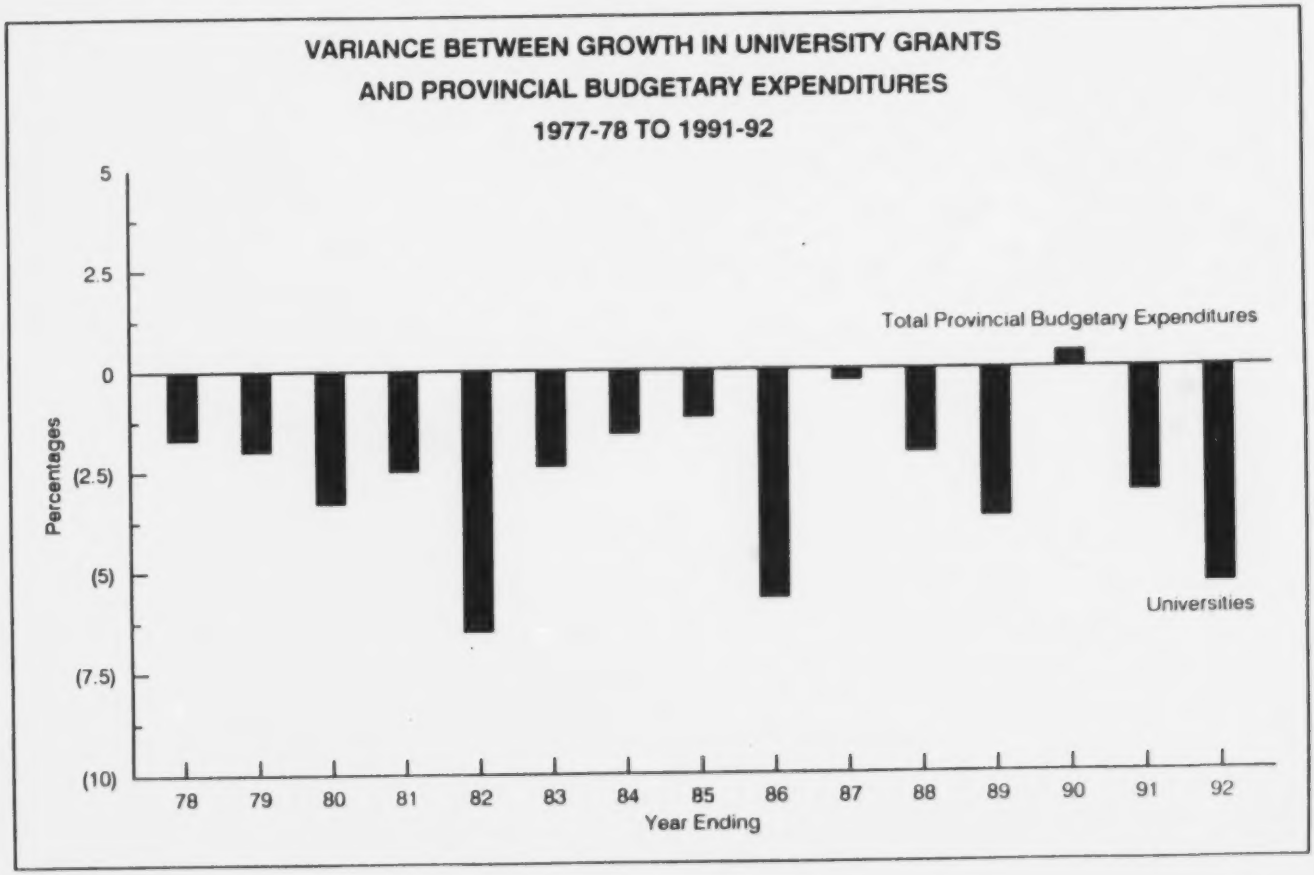
VARIANCE BETWEEN GROWTH IN UNIVERSITY GRANTS
AND PROVINCIAL BUDGETARY EXPENDITURES
1977-78 TO 1991-92
5
2.5
0
(2.5)
(5)
(7.5)
(10)
Percentages
Total Provincial Budgetary Expenditures
Universities
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
Year Ending

TABLE 2

PERCENTAGE INCREASE IN PROVINCIAL OPERATING GRANTS AND TOTAL BUDGETARY EXPENDITURES 1977-78 TO 1991-92

	Operating Grants to Ontario Universities	Total Provincial Budgetary Expenditures	Universities Difference from Provincial Annual Increase
1977-78	8.4	10.1	(1.7)
1978-79	5.8	7.8	(2.0)
1979-80	5.1	8.4	(3.3)
1980-81	7.2	9.7	(2.5)
1981-82	10.2	16.7	(6.5)
1982-83	12.1	14.5	(2.4)
1983-84	7.5	9.1	(1.6)
1984-85	6.5	7.6	(1.1)
1985-86	5.1	10.8	(5.7)
1986-87	9.5	9.8	(0.3)
1987-88	6.5	8.6	(2.1)
1988-89	7.1	10.9	(3.8)
1989-90	7.8	7.4	0.4
1990-91(e)	8.7	11.8*	(3.1)
1991-92(e)	8.0	13.4	(5.4)
Average	7.7	10.5	(2.8)

Source: Province of Ontario, *Public Accounts*, various years.
Province of Ontario, *Expenditure Estimates, 1990-91*
Province of Ontario, *1991 Ontario Budget*

* Estimates of total provincial budgetary expenditure increases have been consistently understated. This has resulted in consistently underestimating the differences between increases in grants to universities, which normally do not change during the fiscal year, and increases in total provincial budgetary expenditures.

FIGURE 3

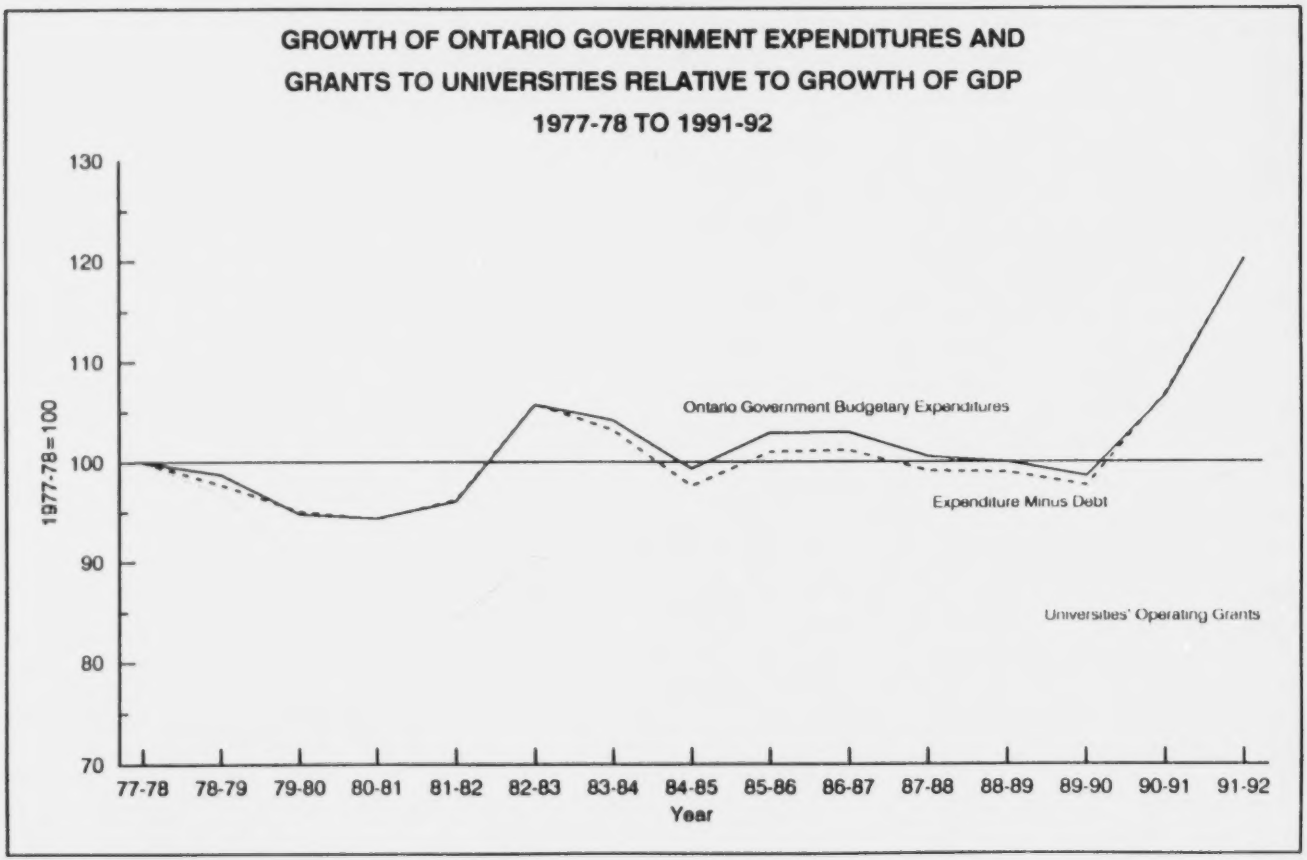
GROWTH OF ONTARIO GOVERNMENT EXPENDITURES AND
GRANTS TO UNIVERSITIES RELATIVE TO GROWTH OF GDP
1977-78 TO 1991-92
130
120
110
100
90
80
70
1977-78=100
Ontario Government Budgetary Expenditures
Expenditure Minus Debt
Universities' Operating Grants
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
91-92
Year

TABLE 3

GROWTH OF ONTARIO GOVERNMENT EXPENDITURES AND GRANTS TO UNIVERSITIES RELATIVE TO THE GROWTH OF GDP 1977-78 TO 1991-92

	GDP Index Values	Government Expenditures Index	Government Minus Debt Interest Index	Universities' Grants Index	Growth of Government vs. GDP	Government Minus Debt Interest vs. GDP	Growth of Universities' Grants vs. GDP
1977-78	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978-79	109.2	107.8	106.7	105.8	98.8	97.7	96.9
1979-80	123.3	116.9	117.3	111.1	94.8	95.1	90.2
1980-81	135.8	128.2	128.2	119.1	94.4	94.4	87.7
1981-82	155.7	149.7	149.9	131.3	96.1	96.3	84.3
1982-83	162.2	171.4	171.6	147.2	105.7	105.8	90.8
1983-84	179.5	187.0	185.2	158.2	104.2	103.2	88.1
1984-85	202.6	201.3	197.8	168.4	99.4	97.6	83.1
1985-86	216.8	223.1	219.1	176.9	102.9	101.1	81.6
1986-87	238.0	245.1	240.9	193.7	103.0	101.2	81.4
1987-88	264.6	266.1	262.2	206.3	100.6	99.1	78.0
1988-89	294.9	295.0	291.9	221.0	100.1	99.0	75.0
1989-90	321.3	316.9	313.9	238.3	98.6	97.7	74.2
1990-91	332.4	354.3	355.0	259.1	106.6	106.8	77.9
1991-92	334.3	401.9	401.8	277.9	120.2	120.2	83.2

Note: The first four columns of information measure the growth of the economy (as measured by the Gross Domestic Product), the growth of provincial government expenditures, the growth of those same expenditures but excluding public debt interest payments, and the growth of operating grants to universities. The last three columns compare the rates of growth of government expenditures (including and excluding debt payments) and grants to universities with the rate of growth of the economy. That is, an index value of 100.0 indicates an identical growth rate to that of the GDP, a lesser value indicates a lower rate of growth, and a value greater than 100.0 indicates a growth rate greater than the growth rate of the GDP.

Sources: *Public Accounts of Ontario*, various years
1991 Ontario Budget

FIGURE 4

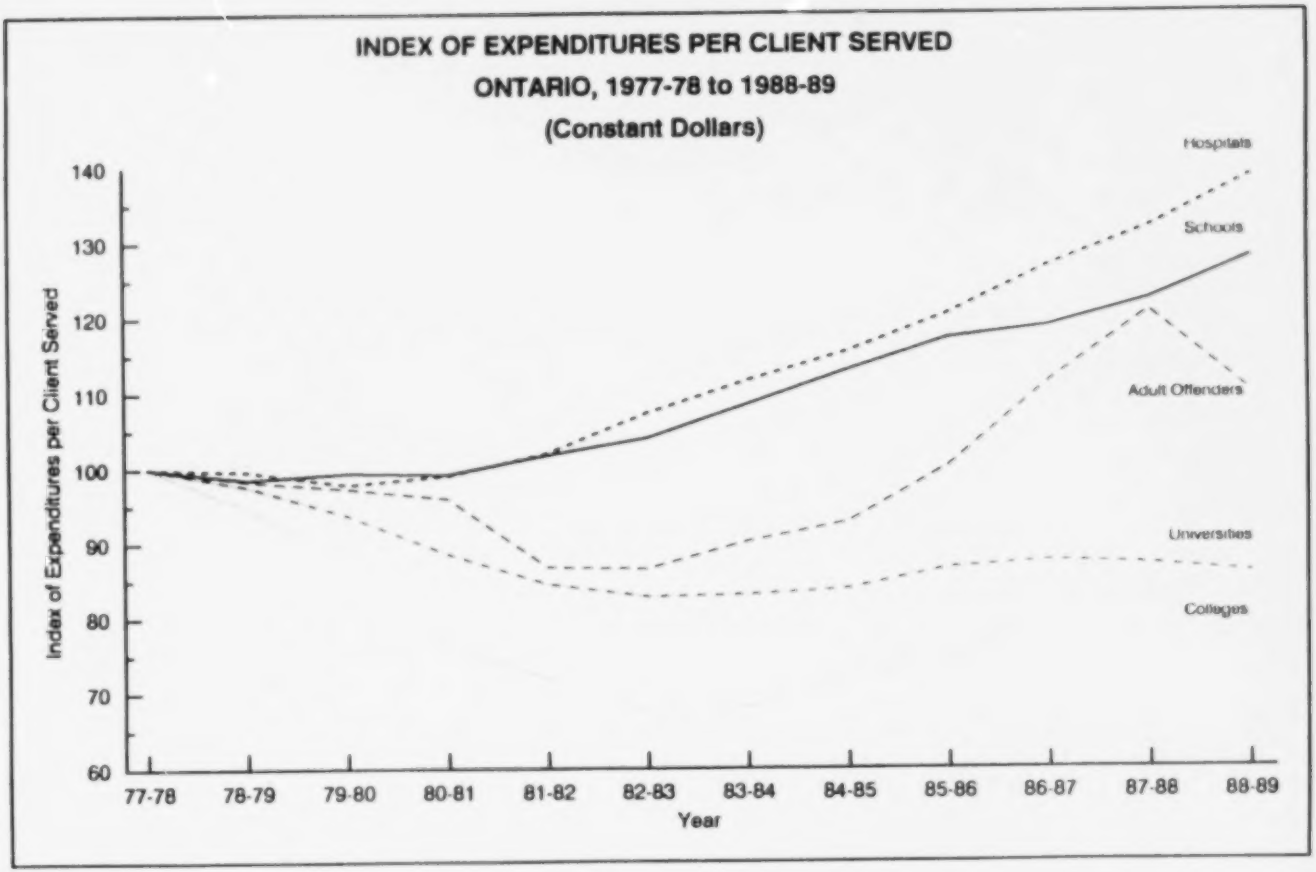
INDEX OF EXPENDITURES PER CLIENT SERVED
ONTARIO, 1977-78 to 1988-89
(Constant Dollars)
Hospitals
Schools
Adult Offenders
Universities
Colleges
Index of Expenditures per Client Served
140
130
120
110
100
90
80
70
60
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
Year

TABLE 4

EXPENDITURES PER CLIENT SERVED, 1977-78 TO 1988-89

		1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
Elementary & Secondary Education (total school costs per pupil)1	Actual	$2,083	$2,240	$2,468	$2,735	$3,149	$3,517	$3,859	$4,173	$4,505	$4,761	$5,111	$5,570
	Constant	4,359	4,295	4,333	4,321	4,434	4,529	4,727	4,920	5,102	5,174	5,327	5,570
	Index	100.0	98.5	99.4	99.1	101.7	103.9	108.4	112.9	117.1	118.7	122.2	127.8
Hospitals (gross operating costs per diem)2	Actual	$151.91	$165.06	$177.19	$199.15	$230.06	$264.67	$289.52	$311.06	$337.82	$370.80	$401.88	$440.42
	Constant	317.90	316.50	311.07	314.66	323.97	340.81	354.61	366.77	382.62	402.93	418.85	440.42
	Index	100.0	99.6	97.8	99.0	101.9	107.2	111.5	115.4	120.4	126.7	131.8	138.5
CAATs (operating cost per provincially-funded FTE student)3	Actual	$3,949	$4,083	$4,113	$3,979	$4,222	$4,339	$4,602	$5,059	$5,428	$6,199	$6,548	$7,065
	Constant	8,264	7,829	7,221	6,287	5,945	5,587	5,637	5,965	6,148	6,736	6,824	7,065
	Index	100.0	94.7	87.4	76.1	71.9	67.6	68.2	72.2	74.4	81.5	82.6	85.5
Adult Offenders (expenditure per inmate day)4	Actual	$47.50	$50.97	$55.09	$60.32	$61.22	$66.80	$73.16	$78.17	$87.83	$101.89	$115.10	$109.10
	Constant	99.40	97.73	96.71	95.31	86.21	86.02	89.61	92.17	99.48	110.72	119.96	109.10
	Index	100.0	98.3	97.3	95.9	86.7	86.5	90.1	92.7	100.1	111.4	120.7	109.8
Universities (operating expense per FTE student)5	Actual	$4,723	$5,030	$5,277	$5,534	$5,929	$6,354	$6,697	$7,021	$7,557	$7,963	$8,252	$8,495
	Constant	9,884	9,645	9,264	8,744	8,349	8,182	8,203	8,278	8,559	8,653	8,600	8,495
	Index	100.0	97.6	93.7	88.5	84.5	82.8	83.0	83.8	86.6	87.5	87.0	85.9

Sources:
1. Ministry of Education.
2. Ministry of Health, *Hospital Statistics*, various years
3. Ministry of Colleges and Universities.
4. Ministry of Correctional Services
5. Ministry of Colleges and Universities, *MCU Financial Report*, various years; and Council of Finance Officers - Universities of Ontario, *Financial Report of Ontario Universities*, various years.

FIGURE 5

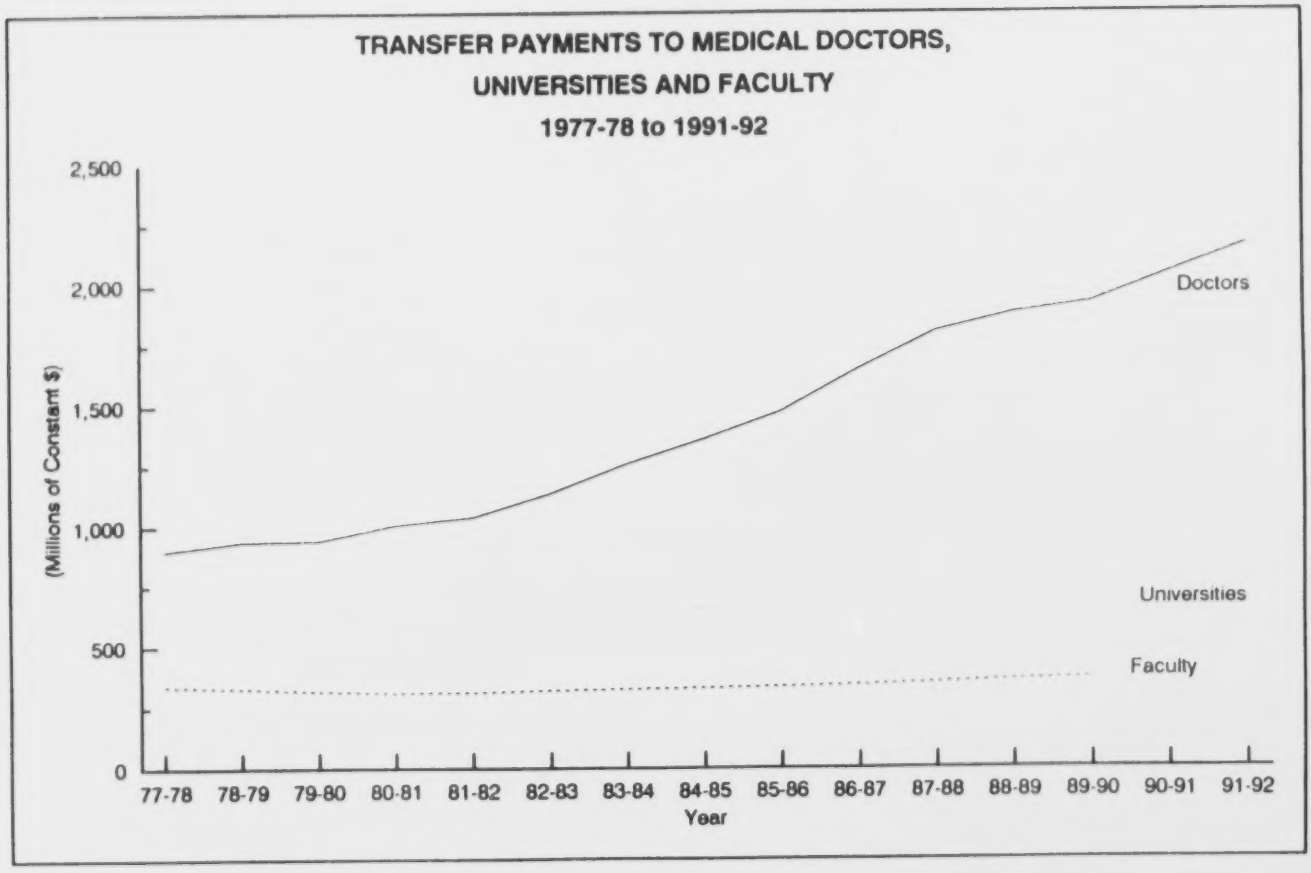
TRANSFER PAYMENTS TO MEDICAL DOCTORS,
UNIVERSITIES AND FACULTY
1977-78 to 1991-92
(Millions of Constant $)
2,500
2,000
1,500
1,000
500
0
Doctors
Universities
Faculty
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
91-92
Year

TABLE 5

TRANSFER PAYMENTS TO MEDICAL DOCTORS, UNIVERSITIES, AND FACULTY, 1977-78 TO 1991-92
($MILLIONS)

	OHIP Payments to Physicians and Practitioners			Salaries of University Faculty With Academic Rank			Operating Grants to Universities		
	Actual Dollars	Constant Dollars	Index	Actual Dollars	Constant Dollars	Index	Actual Dollars	Constant Dollars	Index
1977-78	$ 898.2	$ 898.2	100.0	$340.5	$340.5	100.0	$ 703.6	$703.6	100.0
1978-79	1,023.3	937.9	104.4	358.6	328.7	96.5	744.2	682.1	96.9
1979-80	1,122.0	941.8	104.9	378.1	317.4	93.2	781.9	656.3	93.3
1980-81	1,334.3	1,007.2	112.1	410.4	309.8	91.0	838.1	632.6	89.9
1981-82	1,543.0	1,038.1	115.6	460.1	309.5	90.9	923.5	621.3	88.3
1982-83	1,846.5	1,135.5	126.4	521.2	320.5	94.1	1,035.7	636.9	90.5
1983-84	2,149.3	1,257.6	140.0	556.7	325.7	95.7	1,112.8	651.1	92.5
1984-85	2,416.4	1,360.8	151.5	583.8	328.8	96.6	1,184.7	667.2	94.8
1985-86	2,723.7	1,473.4	164.0	617.8	334.2	98.2	1,244.8	673.4	95.7
1986-87	3,177.4	1,649.6	183.7	658.4	341.8	100.4	1,362.9	707.6	100.6
1987-88	3,628.2	1,806.0	201.1	706.9	351.9	103.3	1,451.6	722.5	102.7
1988-89	3,936.5	1,880.4	209.4	759.9	363.0	106.6	1,554.9	742.8	105.6
1989-90	4,244.0	1,925.3	214.3	819.1	371.6	109.1	1,676.9	760.7	108.1
1990-91 (estimate)	4,736.7	2,044.5	227.6	...	...	...	1,822.8	786.8	111.8
1991-92 (estimate)	5,257.3	2,161.2	240.6	...	...	...	1,952.8	802.8	114.1

Source: Ontario, *Public Accounts*, various years.
Ontario, *Expenditure Estimates, 1991-92*
COFO-UO, *Financial Report of Ontario Universities*, various years.

FIGURE 6

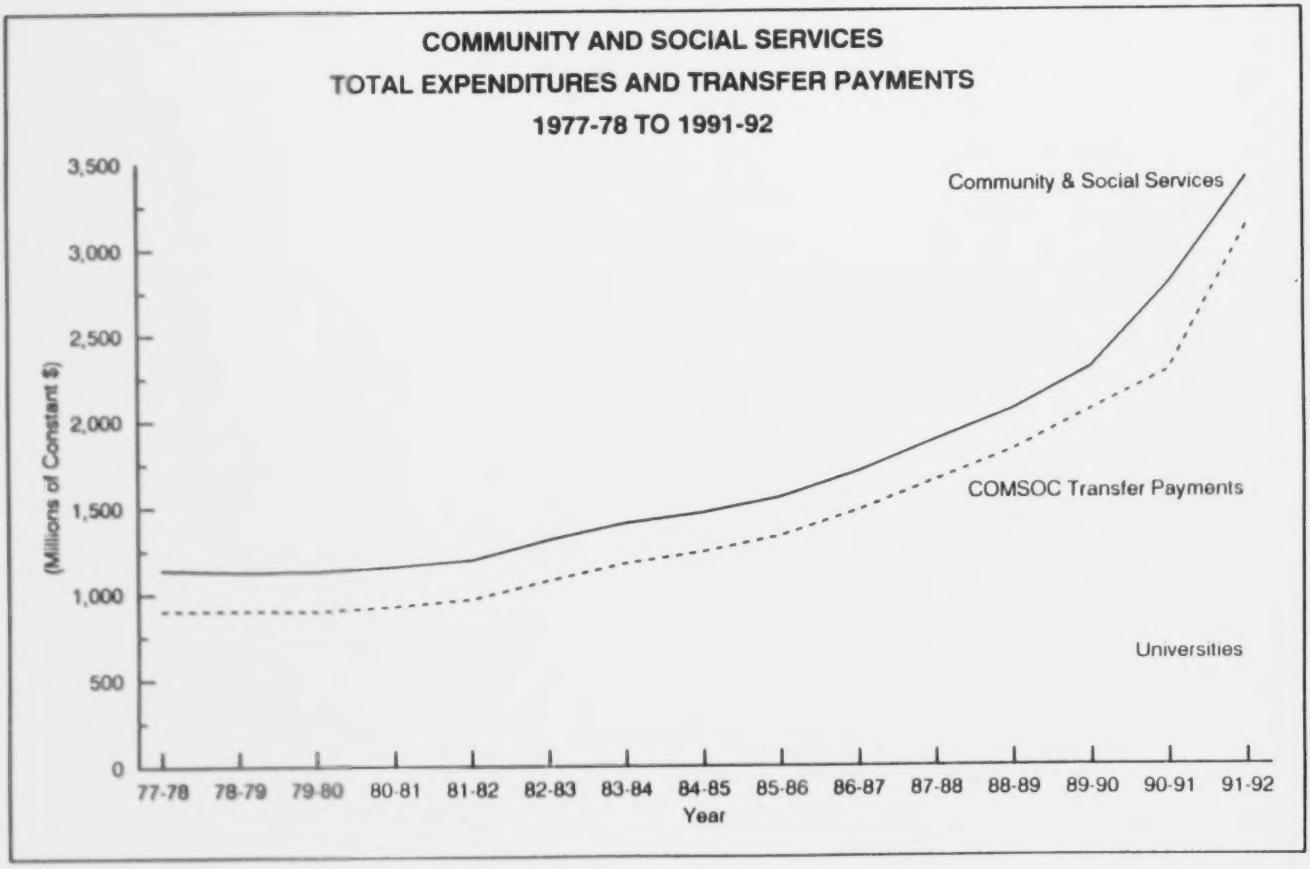
COMMUNITY AND SOCIAL SERVICES
TOTAL EXPENDITURES AND TRANSFER PAYMENTS
1977-78 TO 1991-92
(Millions of Constant $)
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Community & Social Services
COMSOC Transfer Payments
Universities
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
91-92
Year

TABLE 6

COMMUNITY AND SOCIAL SERVICES TRANSFER PAYMENTS AND OPERATING GRANTS TO UNIVERSITIES, 1977-78 TO 1991-92 (CONSTANT $ MILLIONS AND % OF PROVINCIAL BUDGETARY EXPENDITURES)

	Community and Social Services Transfer Payments			Operating Grants to Universities		
	$	%	Index	$	%	Index
1977-78	$900.8	6.86	100.0	$703.6	5.36	100.0
1978-79	899.4	6.93	99.8	682.1	5.26	96.9
1979-80	897.1	6.97	99.6	656.3	5.10	93.2
1980-81	924.7	7.27	102.7	632.8	4.98	89.9
1981-82	962.3	7.28	106.8	621.3	4.70	88.3
1982-83	1,071.4	7.74	118.9	636.9	4.60	90.6
1983-84	1,171.1	8.15	130.0	651.1	4.53	92.6
1984-85	1,237.6	8.31	137.4	667.2	4.48	94.9
1985-86	1,328.5	8.38	147.5	673.4	4.25	95.7
1986-87	1,477.0	8.83	164.0	707.6	4.24	100.6
1987-88	1,651.2	9.49	183.3	722.5	4.15	102.7
1988-89	1,823.4	9.85	202.4	742.8	4.01	105.6
1989-90	2,055.7	10.88	228.2	760.7	4.03	108.2
1990-91	2,280.0	11.35	253.1	785.3	3.92	111.8
1991-92	3,120.2	14.38	346.4	803.9	3.71	114.3

Source: Ontario, *Public Accounts*, various years
Ontario, *Expenditure Estimates 1991-92*
1991 Ontario Budget

FIGURE 7

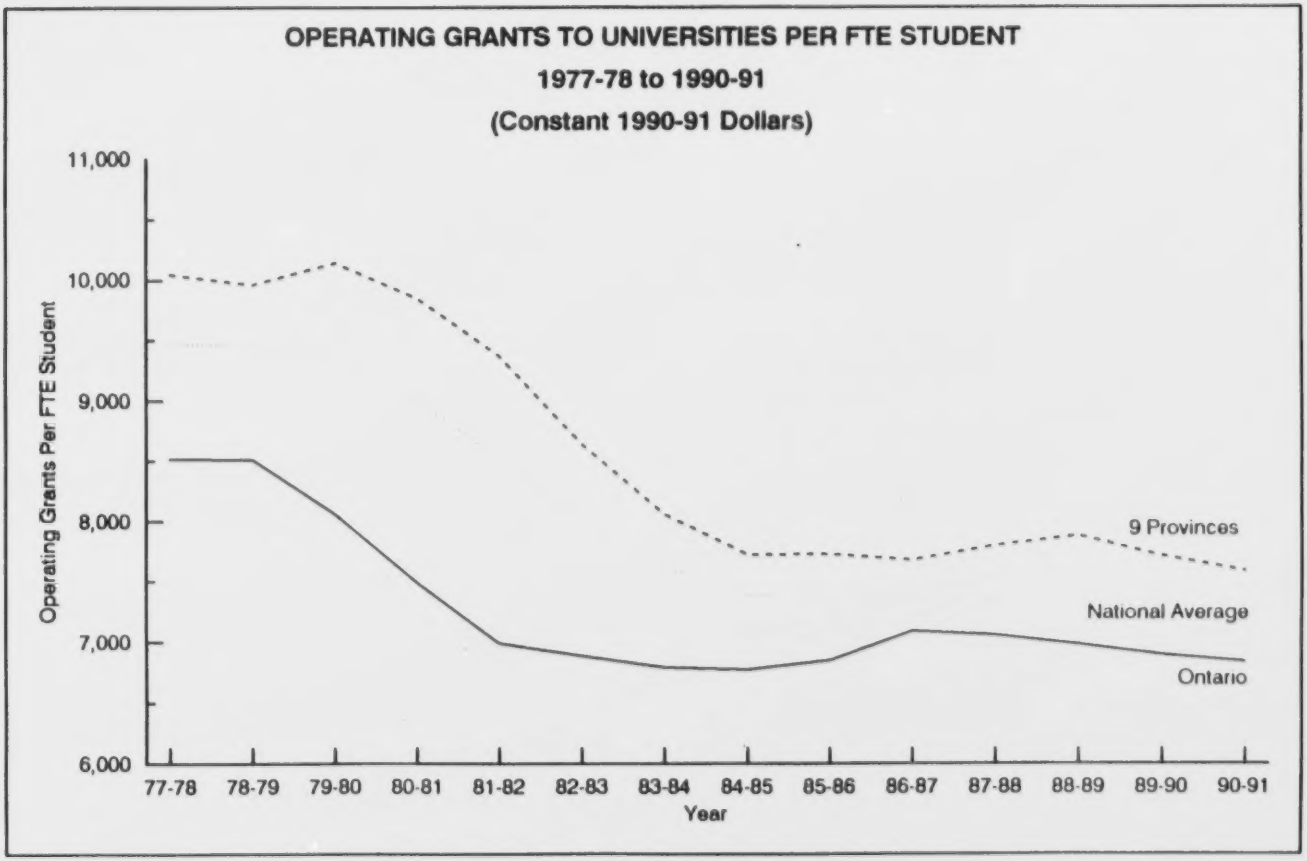
OPERATING GRANTS TO UNIVERSITIES PER FTE STUDENT
1977-78 to 1990-91
(Constant 1990-91 Dollars)
Operating Grants Per FTE Student
11,000
10,000
9,000
8,000
7,000
6,000
9 Provinces
National Average
Ontario
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

TABLE 7

INTERPROVINCIAL COMPARISONS OF OPERATING GRANTS TO UNIVERSITIES PER FTE STUDENT 1977-78 TO 1990-91

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89e	1989-90e	1990-91e
British Columbia	$4,410 (4)	$4,903 (3)	$5,204 (4)	$5,528 (4)	$6,217 (2)	$6,193 (3)	$5,873 (4)	$5,810 (4)	$5,784 (8)	$5,988 (8)	$6,384 (8)	$6,514 (8)	$6,699 (8)	6,926 (8)
Alberta	4,797 (1)	5,340 (2)	5,815 (2)	6,284 (1)	6,812 (1)	7,328 (1)	7,182 (2)	7,114 (1)	7,264 (1)	7,388 (1)	7,158 (2)	7,357 (3)	7,598 (3)	7,606 (3)
Saskatchewan	4,108 (5)	4,616 (5)	5,098 (5)	5,304 (5)	5,619 (5)	6,149 (4)	6,235 (3)	6,361 (3)	6,686 (3)	6,623 (4)	6,747 (6)	7,000 (5)	6,940 (7)	6,968 (7)
Manitoba	3,874 (7)	4,124 (7)	4,771 (6)	4,499 (7)	5,062 (6)	5,362 (6)	5,582 (6)	5,704 (5)	6,073 (5)	6,336 (5)	6,804 (4)	6,983 (6)	7,248 (4)	7,429 (4)
Quebec	4,449 (3)	4,657 (4)	5,299 (3)	5,935 (2)	6,176 (3)	5,915 (5)	5,713 (5)	5,613 (6)	5,936 (6)	6,193 (7)	6,797 (5)	7,382 (2)	7,636 (2)	8,051 (2)
New Brunswick	3,905 (6)	4,364 (6)	4,755 (7)	4,915 (6)	4,974 (7)	5,228 (7)	5,122 (7)	5,440 (7)	5,895 (7)	6,197 (6)	6,551 (7)	6,770 (7)	7,021 (6)	7,242 (6)
Nova Scotia	3,476 (9)	3,802 (9)	4,042 (10)	4,340 (9)	4,859 (8)	4,986 (9)	5,045 (9)	5,250 (9)	5,539 (9)	5,752 (10)	5,941 (10)	6,048 (10)	6,135 (10)	6,217 (10)
Prince Edward Island	3,030 (10)	3,544 (10)	4,246 (8)	4,430 (8)	4,712 (9)	5,012 (8)	5,075 (8)	5,270 (8)	6,075 (4)	6,759 (3)	7,093 (3)	7,067 (4)	7,120 (5)	7,384 (5)
Newfoundland	4,625 (2)	5,485 (1)	5,994 (1)	5,684 (3)	5,847 (4)	6,912 (2)	7,788 (1)	6,994 (2)	6,761 (2)	6,999 (2)	7,460 (1)	7,634 (1)	8,139 (1)	8,545 (1)
9 Provinces	4,329 -	4,686 -	5,209 -	5,618 -	6,001 -	6,049 -	5,931 -	5,906 -	6,152 -	6,373 -	6,747 -	7,105 -	7,323 -	7,585 -
Ontario (Rank)	**3,669 (8)**	**4,002 (8)**	**4,140 (9)**	**4,273 (10)**	**4,475 (10)**	**4,821 (10)**	**5,000 (10)**	**5,180 (10)**	**5,450 (10)**	**5,885 (9)**	**6,105 (9)**	**6,297 (9)**	**6,548 (9)**	**6,838 (9)**
Canada	$4,086 -	$4,443 -	$4,826 -	$5,138 -	$5,457 -	$5,614 -	$5,608 -	$5,651 -	$5,906 -	$6,202 -	$6,519 -	6,815 -	7,043 -	7,314 -

e = estimate

Source: Tripartite Committee on Interprovincial Comparisons
February 1991, for actual data.
COU Research Division for estimates.

TABLE 8

PROVINCIAL OPERATING GRANTS FOR UNIVERSITIES
PER $1,000 OF PROVINCIAL PERSONAL INCOME

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89e	1989-90e	Rank 1989-90
British Columbia	$10.23	$10.10	$9.50	$8.92	$8.70	$8.53	$8.18	$7.45	$6.79	$6.68	$6.84	$6.55	$6.28	(10)
Alberta	13.83	12.68	11.57	10.50	9.80	10.50	10.96	11.14	10.31	10.43	9.94	9.24	9.09	(7)
Saskatchewan	12.49	12.03	11.59	11.18	9.88	10.10	10.53	10.43	10.19	9.62	9.53	9.27	8.80	(8)
Manitoba	13.18	11.87	12.17	11.19	10.50	11.14	11.74	10.79	10.63	10.44	10.33	10.01	9.90	(6)
Quebec	13.35	13.66	13.90	14.34	13.67	12.59	12.14	11.53	11.28	11.23	11.51	11.78	11.47	(4)
New Brunswick	14.06	13.93	13.64	13.31	12.75	12.70	12.36	11.92	11.79	11.59	11.68	11.50	11.47	(5)
Nova Scotia	15.71	15.12	14.27	14.58	14.35	13.94	13.77	13.35	12.57	12.31	12.15	12.01	11.80	(2)
Prince Edward Island	12.14	11.27	11.68	11.43	10.59	11.17	11.03	10.53	10.96	11.23	12.01	11.42	11.60	(3)
Newfoundland	14.70	14.57	14.40	14.20	14.05	13.75	13.32	12.91	12.71	13.19	12.97	12.51	12.58	(1)
9 Provinces	12.91	12.69	12.44	12.22	11.57	11.26	11.14	10.53	10.26	10.20	10.25	10.13	9.86	-
Ontario	**9.83**	**9.35**	**8.75**	**8.39**	**7.92**	**8.09**	**7.95**	**7.65**	**7.56**	**7.63**	**7.40**	**7.14**	**6.97**	
(Rank)	**(10)**	**(10)**	**(10)**	**(10)**	**(10)**	**(10)**	**(10)**	**(9)**	**(9)**	**(9)**	**(9)**	**(9)**		**(9)**
Canada	11.70	11.39	11.01	10.76	10.20	10.06	9.91	9.39	9.20	9.17	9.09	8.89	8.65	-

e = estimate

Source: Tripartite Committee on Interprovincial Comparsions, February 1991, for actual data. Statistics Canada and COU Research Division for estimates.

TABLE 9

INTERPROVINCIAL COMPARISONS OF UNIVERSITY FINANCING
1987-88

	Indicators	Ontario	Rank	Average Of Rest Of Canada	Additonal Funding Required To Equal Rest of Canada	
					Total Required ($ millions)	Total Per Student $
1)	Provincial Operating Grants Per Student	$6,105	(9)	$6,747	$ 145.8	$ 642
2)	Provincial Operating Grants Per Capita	$ 147	(8)	$ 170	$ 220.0	$ 967
3)	Provincial Operating Grants Plus Student Aid Per Capita	$ 157	(9)	$ 184	$ 257.6	$1,134
4)	Provincial Operating Grants Plus Fees Per Student	$7,638	(9)	$7,705	$ 15.3	$ 67
5)	Total Operating Income Per Student	$8,011	(9)	$8,227	$ 49.0	$ 216
6)	Provincial Operating Grants Plus Student Aid As A percentage Of Gross General Expenditures	3.89%	(3)	3.63%	($ 97.0)	($ 427)
7)	Provincial Operating Grants Per $1,000 Of Provincial Personal Income	$ 7.39	(9)	$10.25	$ 536.6	$2,363
8)	Total University Operating Expenditures As A percentage Of Provincial Gross Domestic Product	0.80%	(9)	1.07%	$ 862.6	$3,798

Source: Tripartite Committee on Interprovincial Comparisons, February 1991.

TABLE 10

INTERPROVINCIAL COMPARISONS OF TOTAL OPERATING EXPENSES PER CLIENT

	HOSPITALS		SCHOOLS		UNIVERSITIES	
	Total Operating Expenses Per Patient Day 1987-88		School Board Expenditures Per Student 1987		Total Operating Expenditures Per Student 1987-88	
British Columbia	284.94	(9)	4,223	(7)	7,951	(9)
Alberta	350.90	(5)	4,828	(3)	9,260	(2)
Saskatchewan	288.68	(8)	4,358	(5)	8,322	(6)
Manitoba	427.66	(1)	4,633	(4)	8,673	(4)
Ontario	394.85	(4)	5,096	(2)	7,915	(10)
Quebec	290.67	(7)	5,346	(1)	8,095	(8)
New Brunswick	319.58	(6)	4,358	(6)	8,528	(5)
Nova Scotia	414.95	(2)	4,032	(8)	8,136	(7)
P.E.I.	284.36	(10)	3,579	(10)	10,568	(1)
Newfoundland	410.45	(3)	3,601	(9)	8,930	(3)

Source: Statistics Canada, *Hospital Statistics - Preliminary*
Statistics Canada, *Financial Statistics of Education*
Tripartite Committee on Interprovincial Comparisons, *Interprovincial Comparisons of University Financing.*

FIGURE 8

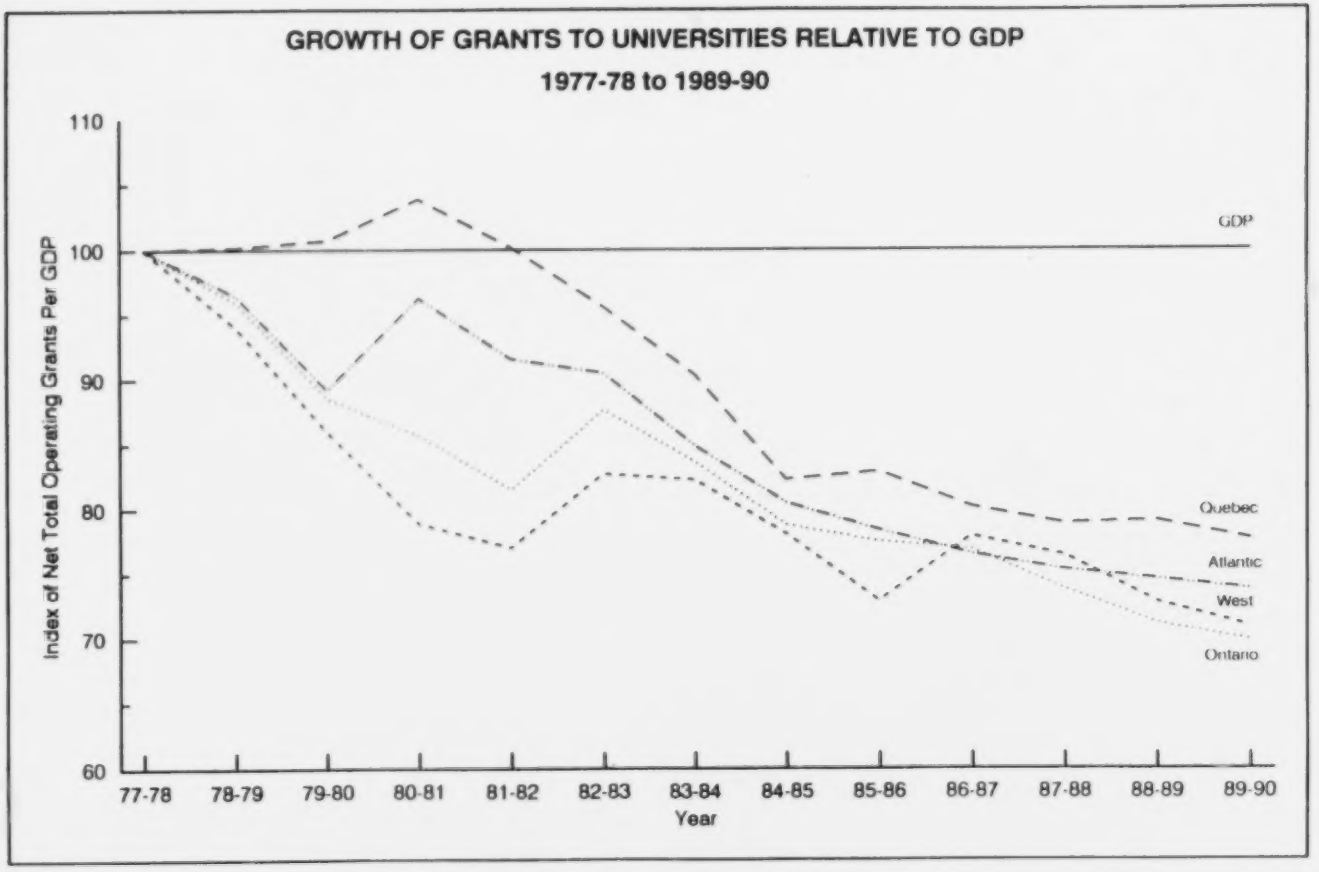
GROWTH OF GRANTS TO UNIVERSITIES RELATIVE TO GDP
1977-78 to 1989-90
Index of Net Total Operating Grants Per GDP
110
100
90
80
70
60
GDP
Quebec
Atlantic
West
Ontario
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
Year

TABLE 11

GDP ELASTICITY BY PROVINCE, 1977-78 TO 1989-90
(GROWTH RATES OF PROVINCIAL OPERATING GRANTS TO UNIVERSITIES AS A RATIO OF GDP GROWTH)

	1977-78 to 1981-82	1981-82 to 1985-86	1985-86 to 1989-90	1977-78 to 1989-90	Rank
British Columbia	0.700	-0.081	0.750	0.475	(10)
Alberta	0.476	1.249	3.351	0.739	(4)
Saskatchewan	0.567	1.366	0.477	0.675	(6)
Manitoba	0.510	1.148	0.649	0.656	(7)
Quebec	1.174	0.316	0.869	0.773	(3)
New Brunswick	0.832	0.664	0.788	0.688	(5)
Nova Scotia	0.869	0.525	0.693	0.597	(9)
Prince Edward Island	0.664	1.353	1.183	0.980	(1)
Newfoundland	0.836	0.704	1.081	0.819	(2)
9 - Provinces	0.785	0.573	0.929	0.703	-
Ontario	0.522	0.909	0.757	0.628	(8)
Canada	0.720	0.675	0.828	0.669	-

Note: In this table, "elasticity" refers to the growth of operating grants to universities relative to the growth of the economy. The table demonstrates that as the economy, stated in terms of Gross Domestic Product, expands or contracts, then operating grants to universities will expand or contract at a ratio greater or lesser than 1.00. That is, if provincial grants to universities are increasing at a faster rate than the GDP, this table will reflect elasticities greater than 1.00. If grants are increasing at a slower rate than the GDP, elasticities will be less than 1.00. If grants to universities actually decline, elasticities will usually equal a negative value.

Sources: Statistics Canada
Tripartite Committee on Interprovincial Comparisons.

FIGURE 9

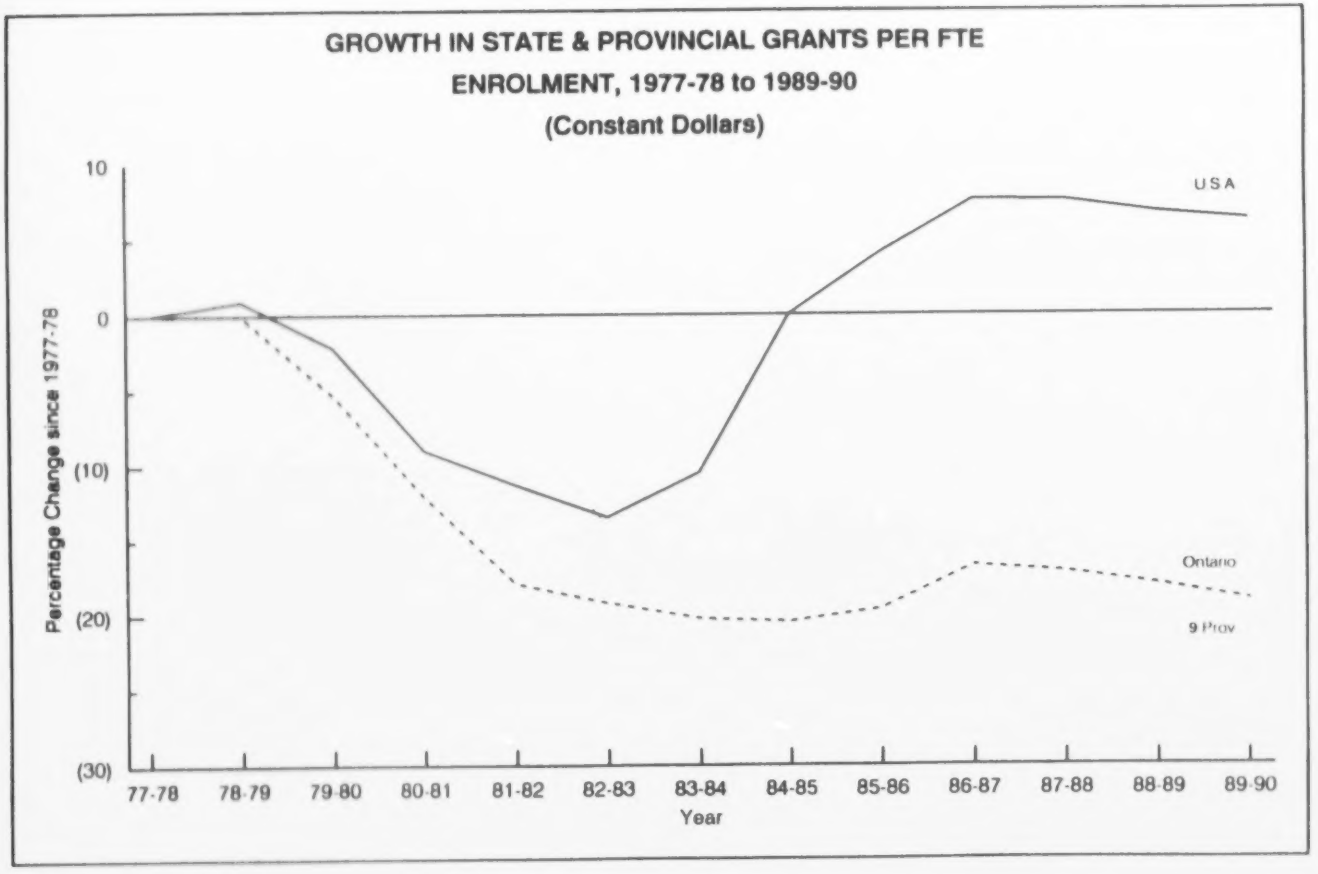
GROWTH IN STATE & PROVINCIAL GRANTS PER FTE
ENROLMENT, 1977-78 to 1989-90
(Constant Dollars)
10
0
(10)
(20)
(30)
Percentage Change since 1977-78
USA
Ontario
9 Prov
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
Year

FIGURE 10

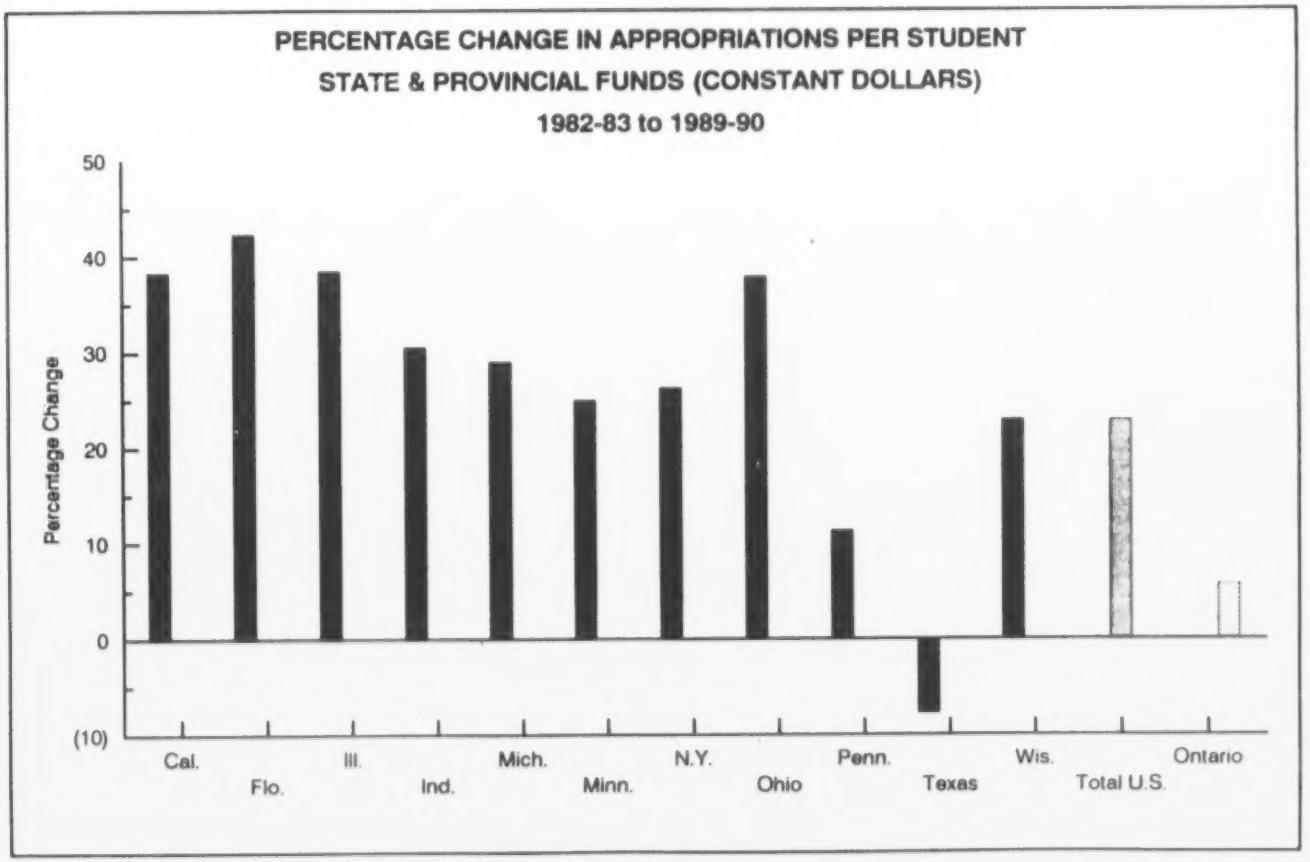
PERCENTAGE CHANGE IN APPROPRIATIONS PER STUDENT
STATE & PROVINCIAL FUNDS (CONSTANT DOLLARS)
1982-83 to 1989-90
Percentage Change
50
40
30
20
10
0
(10)
Cal.
Flo.
Ill.
Ind.
Mich.
Minn.
N.Y.
Ohio
Penn.
Texas
Wis.
Total U.S.
Ontario

FIGURE 11

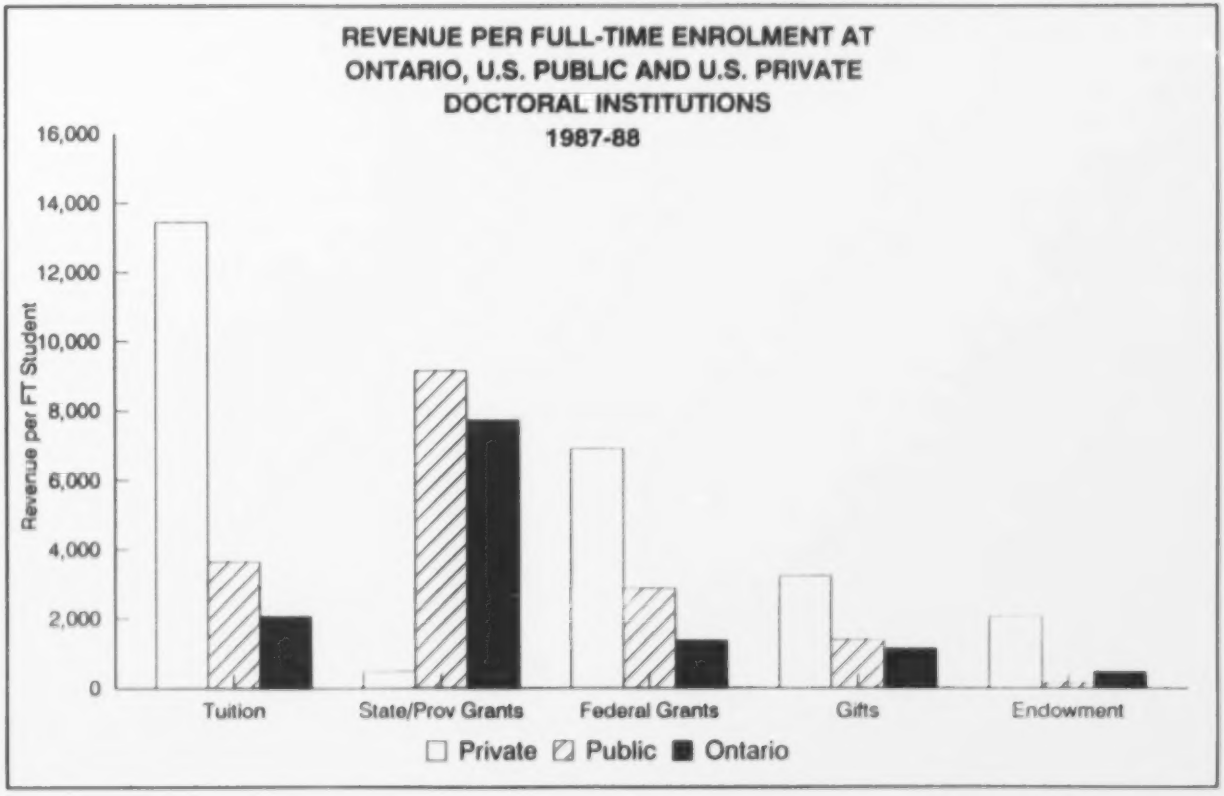
REVENUE PER FULL-TIME ENROLMENT AT
ONTARIO, U.S. PUBLIC AND U.S. PRIVATE
DOCTORAL INSTITUTIONS
1987-88
Revenue per FT Student
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
Tuition
State/Prov Grants
Federal Grants
Gifts
Endowment
Private
Public
Ontario

TABLE 12

REVENUE PER FULL-TIME ENROLMENT AT DOCTORAL LEVEL UNIVERSITIES IN ONTARIO AND ELEVEN MAJOR STATES, 1987-88 ($PPP CDN)

	United States		
	Private	Public	Ontario
Tuition & Fees Per F.T. Student	$13,451	$3,638	$2,060
State/Provincial Appropriations Per F.T. Student	487	9,193	7,726
Federal Contracts Per F.T. Student	6,917	2,872	1,370
State Contracts Per F.T. Student	457	379	469
Gifts Per F.T. Student	3,229	1,386	1,140
Endowment Income Per F.T. Student	2,069	131	465
Total Per F.T. Student	26,610	17,600	13,230

Source: National Center for Higher Education Management Studies, *Financial Statistics*.
Council of Finance Officers - Universities of Ontario, *Financial Report of Ontario Universities 1987-88*.

TABLE 13

PERCENTAGE OF UNIVERSITIES' TOTAL INCOME EXCLUDING ANCILLARY ENTERPRISES, 1989-90

	Provincial Government Grants		Total Fees		Federal Government Grants		Other Income		Total Income
	%	Rank	%	Rank	%	Rank	%	Rank	%
British Columbia	62.6	(8)	14.5	(4)	10.7	(4)	12.2	(6)	100.0
Alberta	70.7	(2)	9.9	(9)	8.4	(8)	11.0	(9)	100.0
Saskatchewan	70.5	(3)	11.0	(7)	8.4	(7)	11.1	(8)	100.0
Manitoba	64.7	(6)	12.8	(5)	10.8	(3)	11.7	(7)	100.0
Quebec	71.4	(1)	6.3	(10)	10.0	(5)	12.3	(5)	100.0
New Brunswick	62.9	(7)	16.8	(2)	7.4	(9)	12.9	(3)	100.0
Prince Edward Island	68.2	(5)	11.1	(6)	3.0	(10)	17.7	(1)	100.0
Nova Scotia	58.0	(10)	17.4	(1)	12.3	(1)	12.3	(4)	100.0
Newfoundland	70.0	(4)	10.0	(8)	12.1	(2)	7.9	(10)	100.0
9 Provinces	68.1	-	10.2	-	9.9	-	11.8	-	100.0
Ontario	62.0	(9)	15.7	(3)	8.7	(6)	13.6	(2)	100.0
Canada	65.8	-	14.5	-	9.4	-	10.3	-	100.0

Source: Canadian Association of University Business Officers, *Financial Statistics of Universities and Colleges 1989-90.*

FIGURE 12

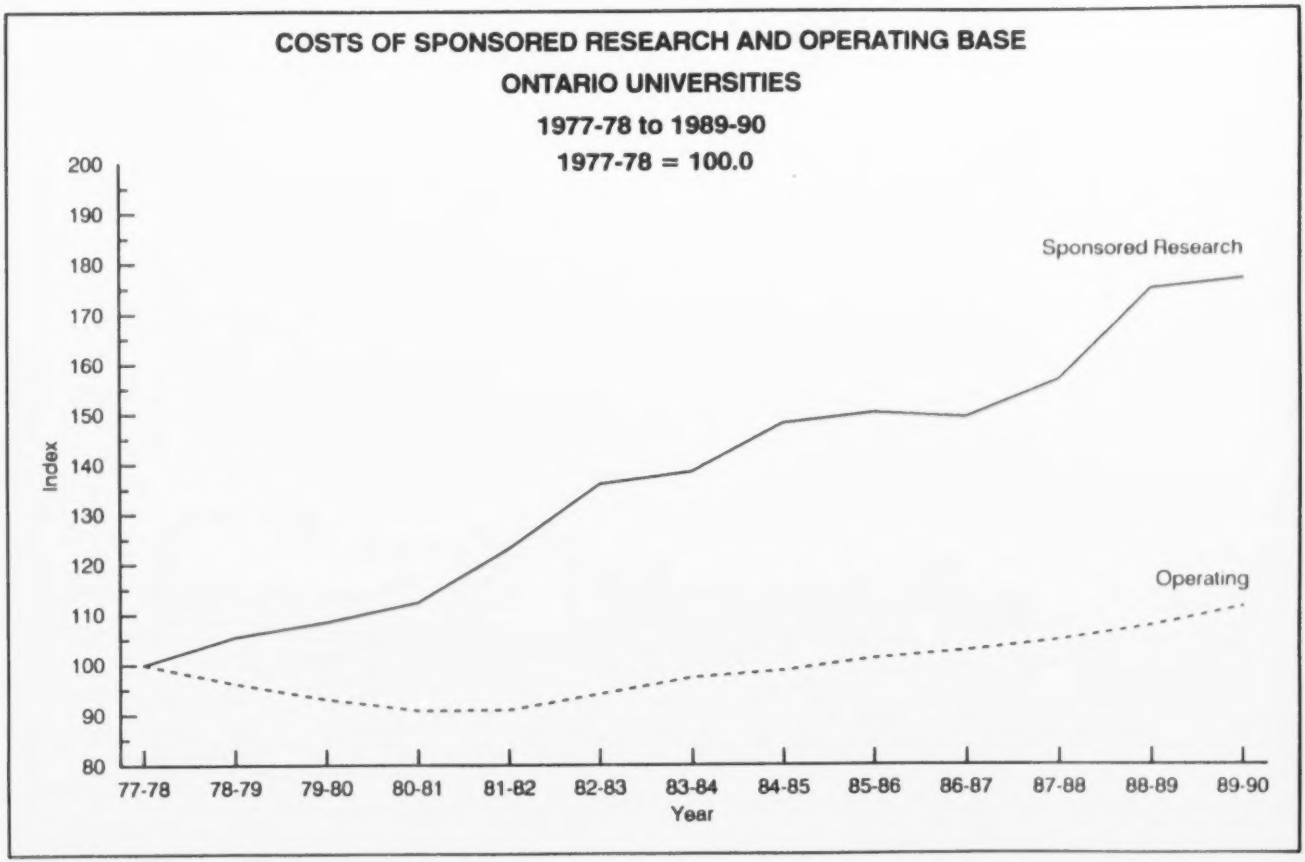
COSTS OF SPONSORED RESEARCH AND OPERATING BASE
ONTARIO UNIVERSITIES
1977-78 to 1989-90
1977-78 = 100.0
Index
200
190
180
170
160
150
140
130
120
110
100
90
80
Sponsored Research
Operating
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
Year

TABLE 14

COSTS OF SPONSORED RESEARCH AND THE OPERATING BASE
1977-78 TO 1989-90

	Sponsored Research Expenses		Operating Expenses	
	Constant Dollars (1989-90) $000	Percentage Growth from 1977-78	Constant Dollars (1989-90) $000	Percentage Growth from 1977-78
1977-78	276,879	-	1,913,783	-
1978-79	291,848	+ 5.4	1,841,927	-3.8
1979-80	300,189	+ 8.4	1,780,874	-6.9
1980-81	311,143	+12.4	1,737,447	-9.2
1981-82	340,583	+23.0	1,739,930	-9.1
1982-83	376,657	+36.0	1,800,137	-5.9
1983-84	383,219	+38.4	1,862,941	-2.7
1984-85	409,654	+48.0	1,888,215	-1.3
1985-86	415,709	+50.1	1,934,812	+1.1
1986-87	412,789	+49.1	1,961,738	+2.5
1987-88	433,391	+56.5	2,002,852	+4.7
1988-89	483,379	+74.6	2,056,827	+7.5
1989-90	488,805	+76.5	2,128,359	+11.2

Source: COFO-UO, *Financial Report of Ontario Universities*, various years.

TABLE 15

SALARIES AND WAGES, ONTARIO UNIVERSITIES, 1977-78 TO 1988-89
(1988-89 $ CONSTANT)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
Academic Ranks												
Constant Dollars ($000)	$712,496	$687,513	$663,828	$648,385	$647,861	$670,889	$681,822	$688,185	$699,712	$715,963	$736,729	$759,913
Constant Dollars Per FTE Enrolment	100.0	96.3	92.4	87.2	83.1	81.5	80.3	80.6	82.6	84.2	84.2	83.7
Other Instruction and Research												
Constant Dollars ($000)	$80,042	$74,331	$72,705	$72,097	$69,997	$69,983	$70,194	$70,747	$73,020	$73,473	$74,829	$80,428
Constant Dollars Per FTE Enrolment	100.0	92.7	90.1	86.3	79.9	75.7	73.6	73.7	76.7	76.9	76.2	78.9
Non-Academic Staff												
Constant Dollars ($000)	$524,809	$502,916	$473,343	$458,003	$459,125	$474,028	$495,742	$503,288	$519,339	$524,638	$539,407	$558,806
Constant Dollars Per FTE Enrolment	100.0	95.7	89.4	83.7	80.0	78.2	79.2	80.0	83.2	83.7	83.7	83.6
Total Salaries and Wages												
Constant Dollars ($000)	$1,317,347	$1,264,759	$1,209,876	$1,178,484	$1,176,983	$1,214,899	$1,247,757	$1,262,220	$1,292,070	$1,314,074	$1,350,966	$1,399,147
Constant Dollars Per FTE Enrolment	100.0	95.9	91.1	85.7	81.7	79.9	79.4	79.9	82.5	83.6	83.6	83.4

Source: COFO-UO, *Financial Report of Ontario Universities*, various years

TABLE 16

COMPARSION OF BENEFIT COSTS
1977-78 TO 1989-90
($000 CONSTANT 1989-90 DOLLARS)
(EXCLUDING OCA, ALGOMA, NIPISSING, HEARST)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90
Statutory Benefits													
O.H.I.P.	12,829	13,440	11,951	10,239	10,438	11,830	11,716	12,000	11,774	11,589	11,210	10,824	7,353
Canada Pension	13,016	12,712	12,440	12,294	12,230	12,923	13,195	13,805	16,603	15,934	16,311	17,289	18,849
Workers' Compensation	2,089	1,865	1,821	1,710	2,042	2,332	2,429	2,837	3,321	3,712	4,225	4,448	4,534
Unemployment Insurance	15,978	14,557	12,130	14,008	16,857	19,462	24,919	26,090	27,446	28,151	28,797	27,895	27,341
Employer Health Tax	0	0	0	0	0	0	0	0	0	0	0	0	10,165
Total Statutory Benefits	43,913	42,575	38,342	38,252	41,568	46,547	52,258	54,732	59,144	59,387	49,333	60,456	68,242
Non-Statutory Benefits													
Pension													
- Current Service	79,347	78,638	76,780	73,533	74,814	79,363	81,917	81,803	82,232	80,952	88,056	69,134	70,191
- Experience Deficiency	3,335	3,658	914	304	577	572	415	384	(228)	(224)	(216)	(667)	0
- Past Service Liability	7,639	7,165	4,492	1,442	218	720	903	1,141	0	104	169	(1,108)	148
Group Life Insurance	8,456	7,632	7,260	6,569	5,780	6,195	6,385	6,001	6,258	6,190	6,541	6,855	7,451
Long Term Disability	3,978	4,131	4,062	5,051	4,802	5,376	6,340	6,168	6,098	6,151	6,341	6,790	6,446
Dental Insurance	2,693	4,272	4,243	4,948	6,435	7,294	7,576	8,260	9,440	10,343	11,120	11,521	13,000
Extended Health Care	2,378	2,075	1,978	2,761	3,076	3,858	4,237	4,984	6,173	6,667	7,207	8,333	9,553
Tuition Remission	1,056	1,937	3,129	3,166	3,901	3,971	4,154	5,068	5,168	5,072	4,661	5,150	5,467
Other	1,069	955	1,142	1,090	1,441	1,362	1,156	539	1,504	(3,710)	(21,201)	(321)	151
Total Non-Statutory Benefits	109,953	110,466	104,000	98,866	101,044	108,711	113,083	114,348	116,645	111,545	102,677	105,688	112,407
Total Benefits	153,865	153,041	142,341	137,118	142,612	155,259	165,341	169,080	175,789	170,932	152,011	166,143	180,649

FIGURE 13

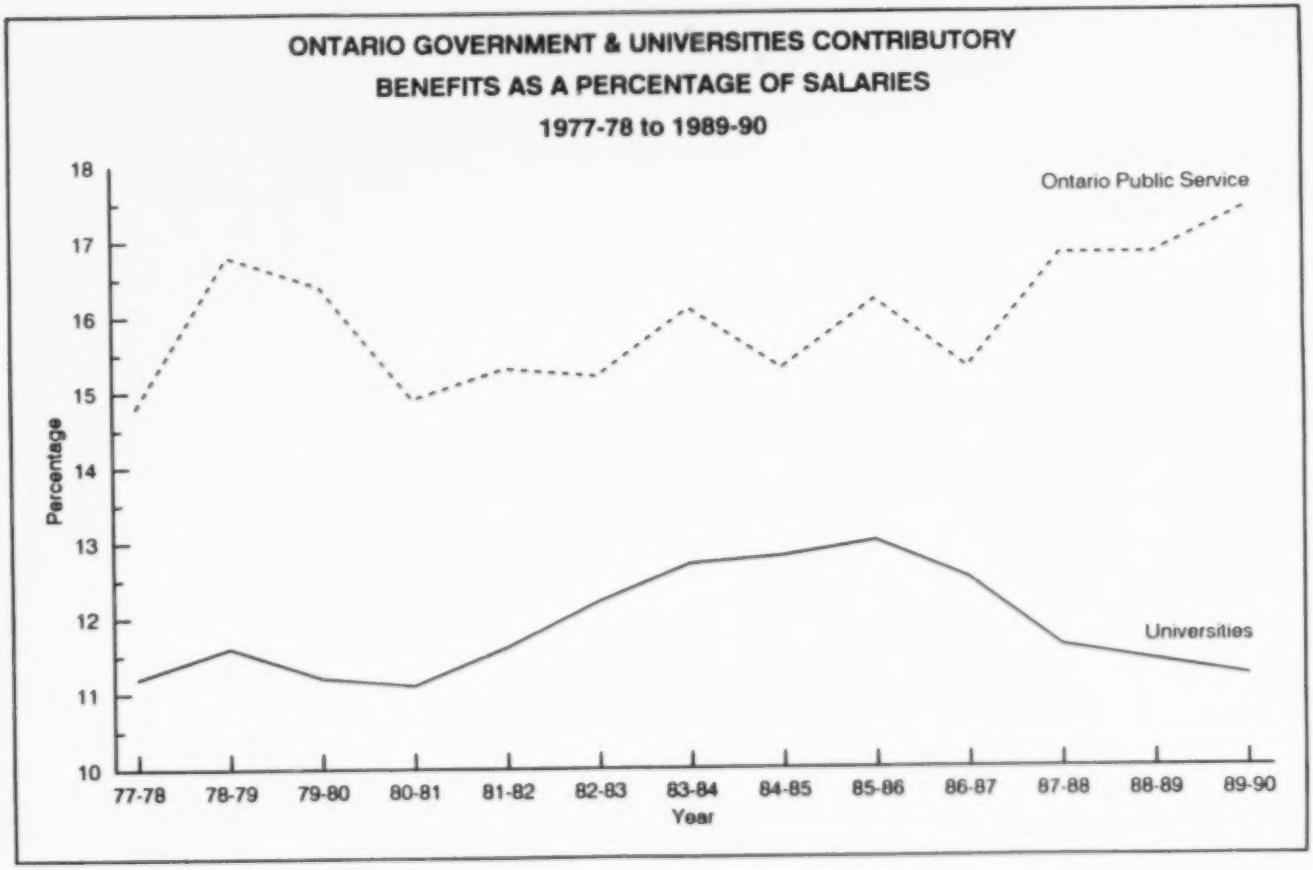
ONTARIO GOVERNMENT & UNIVERSITIES CONTRIBUTORY
BENEFITS AS A PERCENTAGE OF SALARIES
1977-78 to 1989-90
Ontario Public Service
Universities
Percentage
18
17
16
15
14
13
12
11
10
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
Year

FIGURE 14

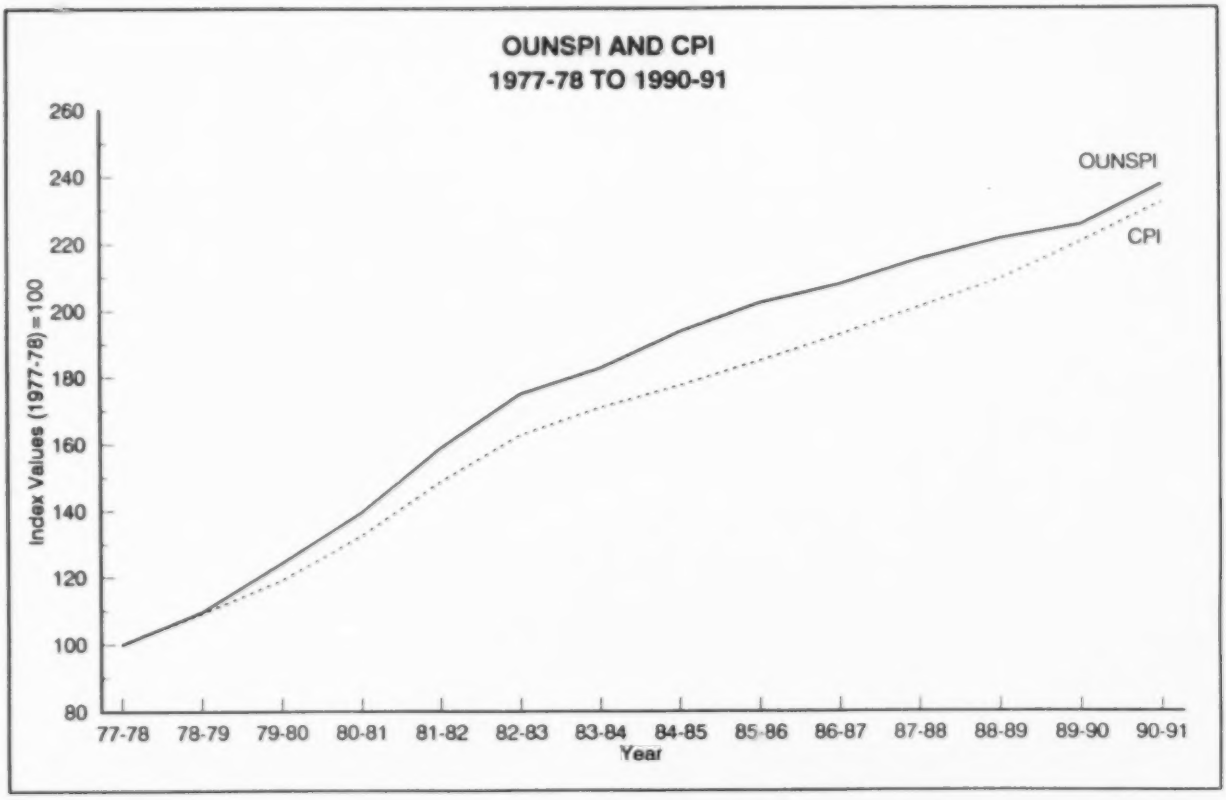
OUNSPI AND CPI
1977-78 TO 1990-91
OUNSPI
CPI
Index Values (1977-78) = 100
260
240
220
200
180
160
140
120
100
80
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
90-91
Year

TABLE 17

CONSUMER PRICE INDEX AND THE ONTARIO UNIVERSITY NON-SALARY PRICE INDEX (1986 REVISION 1980-81 = 100)

Year	OUNSPI	CPI	OUNSPI Annual % Increase	CPI Annual % Increase
Actual				
1970-71	37.8	44.7	-	-
1971-72	39.5	46.4	4.4	3.9
1972-73	40.8	48.8	3.4	5.1
1973-74	45.4	53.1	11.2	8.9
1974-75	52.9	59.2	16.6	11.4
1975-76	58.6	65.1	10.9	10.0
1976-77	63.9	69.5	8.9	6.8
1977-78	71.8	75.5	12.3	8.6
1978-79	78.8	82.4	9.9	9.1
1979-80	89.1	90.0	13.1	9.2
1980-81	100.0	100.0	12.2	11.2
1981-82	113.9	112.2	13.9	12.2
1982-83	125.5	122.7	10.2	9.4
1983-84	131.2	129.0	4.5	5.1
1984-85	139.1	134.0	6.0	3.9
1985-86	145.2	139.5	4.4	4.1
1986-87	149.2	145.3	2.8	4.2
1987-88	154.4	151.6	3.5	4.3
1988-89	158.7	158.0	2.8	4.2
1989-90	161.7	166.3	1.9	5.3
1990-91(e)	170.0	174.9	5.1	5.1

e = estimate

FIGURE 15

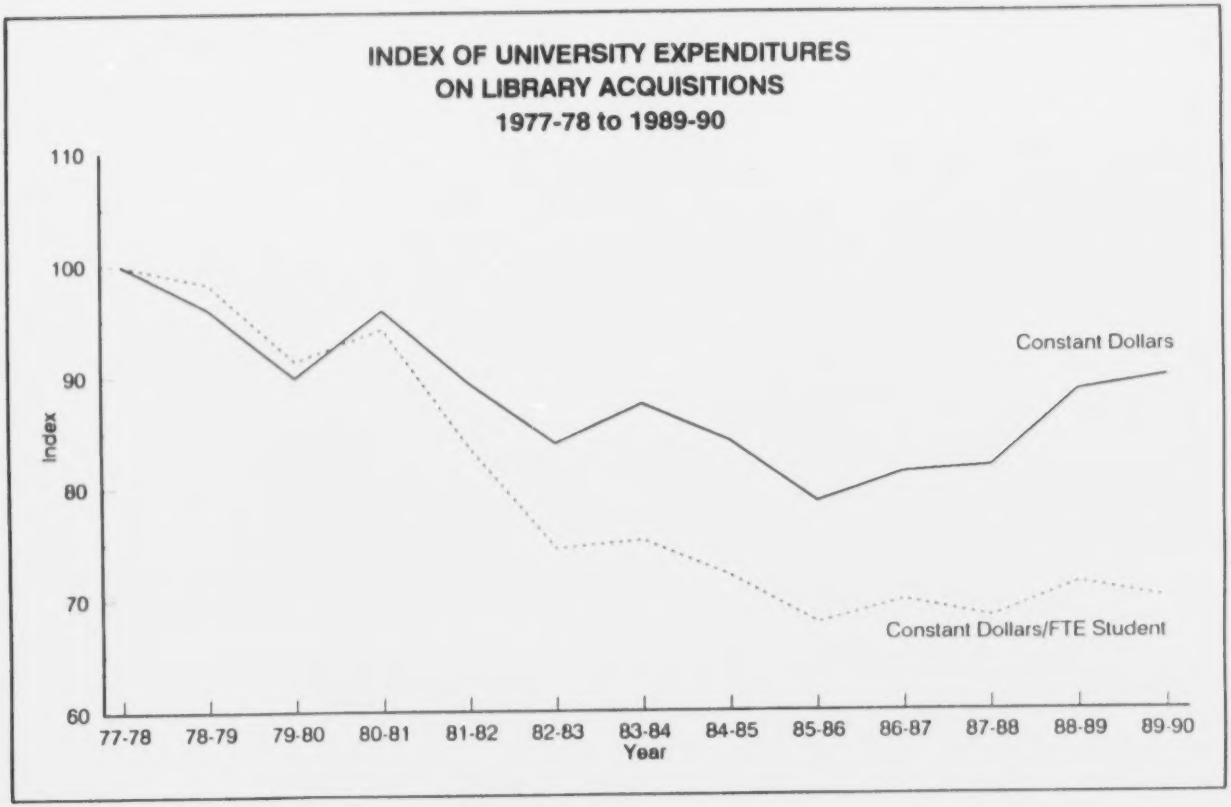
INDEX OF UNIVERSITY EXPENDITURES
ON LIBRARY ACQUISITIONS
1977-78 to 1989-90
110
100
90
80
70
60
Index
Constant Dollars
Constant Dollars/FTE Student
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
86-87
87-88
88-89
89-90
Year

TABLE 18

EXPENDITURES ON LIBRARY ACQUISITIONS
ONTARIO UNIVERSITIES, 1977-78 TO 1989-90

	Acquisitions as % of Total Operating Expenses	Constant Dollars	Constant Dollars per FTE	Cost Index
1977-78	2.0	100.0	100.0	100.0
1978-79	2.1	96.0	98.3	115.4
1979-80	2.2	89.9	91.4	136.5
1980-81	2.3	95.9	94.2	148.0
1981-82	2.2	89.3	83.6	168.8
1982-83	2.1	83.9	74.5	198.1
1983-84	2.2	87.4	75.2	214.3
1984-85	2.2	84.1	72.0	236.7
1985-86	2.2	78.6	67.8	263.8
1986-87	2.2	81.2	69.8	278.4
1987-88	2.2	81.7	68.3	293.3
1988-89	2.3	88.5	71.3	293.6
1989-90	2.2	89.7	69.9	306.7

Source: COFO-UO Financial Report of Ontario Universities, various years.
Bowker (U.S.) Hardcover Book and Periodical.
Price Indices converted for Canadian dollar fluctuations.

FIGURE 16

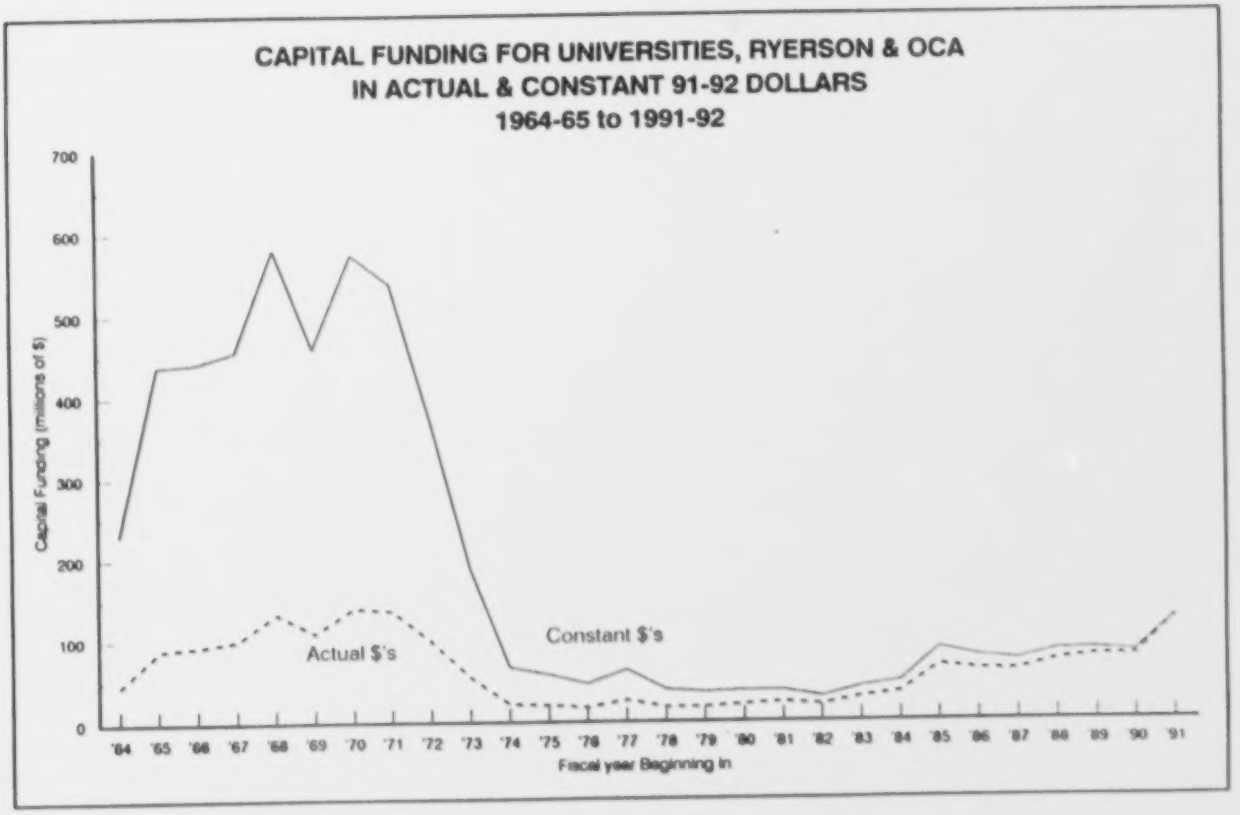
CAPITAL FUNDING FOR UNIVERSITIES, RYERSON & OCA
IN ACTUAL & CONSTANT 91-92 DOLLARS
1964-65 to 1991-92
Capital Funding (millions of $)
700
600
500
400
300
200
100
0
Actual $'s
Constant $'s
'64 '65 '66 '67 '68 '69 '70 '71 '72 '73 '74 '75 '76 '77 '78 '79 '80 '81 '82 '83 '84 '85 '86 '87 '88 '89 '90 '91
Fiscal year Beginning in

TABLE 19

CAPITAL FUNDING FOR UNIVERSITIES, RYERSON, OCA
1964-65 TO 1991-92

	Capital Funding ($000)	Constant 1991-92 dollars ($000)
1964-65	45,600.0	230,674.6
1965-66	89,239.0	438,402.6
1966-67	93,105.0	441,635.4
1967-68	99,995.0	455,941.8
1968-69	132,974.0	580,386.8
1969-70	109,253.0	459,635.0
1970-71	139,805.0	574,197.6
1971-72	136,047.0	538,144.4
1972-73	98,712.0	371,383.7
1973-74	54,492.0	188,413.0
1974-75	21,642.0	67,119.4
1975-76	20,593.2	58,078.5
1976-77	17,618.7	46,543.8
1977-78	26,089.6	63,444.4
1978-79	17,498.4	38,989.2
1979-80	17,740.5	36,190.6
1980-81	20,387.0	37,430.5
1981-82	22,891.7	37,459.1
1982-83	19,620.3	29,358.5
1983-84	28,960.0	41,217.5
1984-85	34,742.6	47,602.5
1985-86	67,225.8	88,476.8
1986-87	61,217.2	77,353.6
1987-88	60,653.0	73,455.7
1988-89	72,700.0	84,479.2
1989-90	77,700.0	85,731.5
1990-91	77,700.0	81,565.0
1991-92	124,258.0	124,258.0

Source: Ministry of Colleges and Universities
Expenditure Estimates 1991-92

TABLE 20

BUILDINGS, LAND AND SITE SERVICES
TOTAL EXPENSES PER FTE STUDENT BY PROVINCE
1977-78 TO 1989-90
($000 CONSTANT 1989-90 DOLLARS)

Province	1977 -78	1978 -79	1979 -80	1980 -81	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987- 88	1988 -89	1989 -90	Total	Rank
British Columbia	1,293	1,225	1,207	1,820	1,435	903	482	940	1,049	449	367	1,163	882	13,216	(4)
Alberta	648	949	1,642	1,534	1,731	1,857	1,755	1,153	1,294	2,209	1,202	593	547	17,113	(2)
Saskatchewan	1,097	1,429	1,893	1,646	643	332	498	691	758	1,110	762	977	2,697	14,534	(3)
Manitoba	188	151	618	115	352	224	482	702	389	505	268	295	162	4,450	(8)
Quebec	1,367	1,531	665	447	233	313	208	313	236	255	207	358	495	6,627	(7)
New Brunswick	24	221	506	59	34	227	441	229	526	521	831	511	77	4,209	(9)
Prince Edward Island	85	60	1,117	320	0	277	108	229	947	20,078	1,544	1,211	2,268	28,246	(1)
Nova Scotia	531	1,431	1,446	1,225	798	221	29	111	331	494	498	549	175	7,839	(5)
Newfoundland	220	240	170	182	142	319	601	190	564	491	1,357	1,575	617	6,669	(6)
9-Provinces	962	1,177	977	855	657	586	510	540	566	789	516	599	643	9,378	-
Ontario	463	251	193	357	214	172	131	148	306	420	321	368	536	3,881	(10)
Canada	753	795	657	651	476	418	359	386	465	647	440	508	601	7,157	-

Source: Statistics Canada
Canadian Association of University Business Officers

FIGURE 17

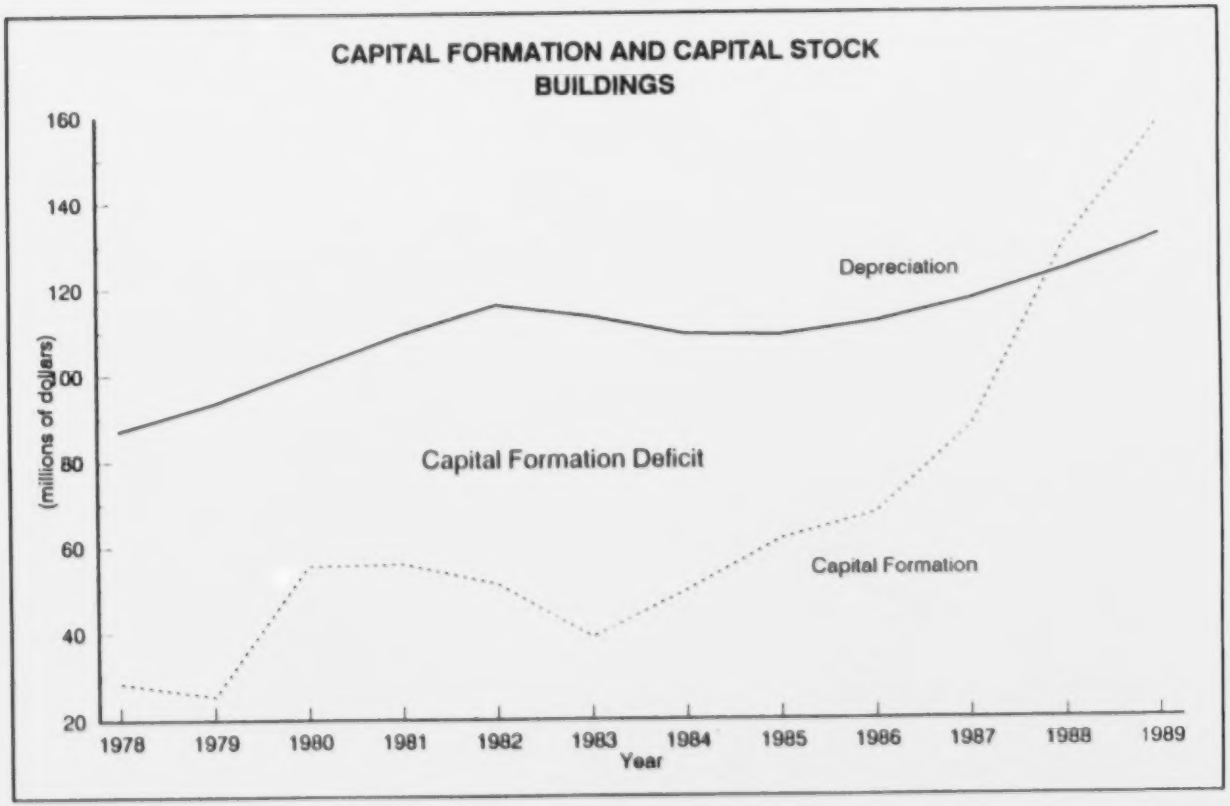
CAPITAL FORMATION AND CAPITAL STOCK
BUILDINGS
160
140
120
100
80
60
40
20
(millions of dollars)
Depreciation
Capital Formation Deficit
Capital Formation
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
Year

TABLE 21
CAPITAL FORMATION AND CAPITAL STOCK, ONTARIO UNIVERSITIES
($ MILLIONS CURRENT DOLLARS)

Years	Buildings				Equipment			
	End-Year Net Stock	Gross Fixed Capital Formation	Geometric Depreciation*	Net Fixed** Capital Formation	End-Year Net Stock	Gross Fixed Capital Formation	Geometric Depreciation*	Net Fixed** Capital Formation
1978	1,530.1	28.5	87.1	(58.6)	78.4	24.2	24.4	(0.2)
1979	1,633.5	25.5	93.4	(67.9)	82.3	27.2	24.5	2.7
1980	1,766.6	55.7	101.5	(45.8)	82.6	36.5	22.7	13.8
1981	1,891.6	56.0	109.4	(53.4)	96.1	35.6	27.0	8.6
1982	1,986.6	51.3	116.2	(64.9)	124.8	41.6	33.5	8.1
1983	1,922.8	39.0	113.5	(74.5)	126.3	46.6	37.8	8.8
1984	1,842.9	49.7	109.3	(59.6)	156.3	71.4	47.8	23.6
1985	1,837.9	61.7	109.0	(47.3)	174.3	80.6	55.0	25.6
1986	1,884.1	67.7	112.0	(44.3)	205.4	116.0	65.4	50.6
1987	1,958.6	87.7	117.1	(29.4)	221.7	102.5	73.2	29.3
1988***	2,070.8	130.3	124.0	6.3	232.4	115.2	79.5	35.7
1989***	2,192.5	158.0	131.7	26.3	229.9	97.1	81.1	16.0

* Capital Consumption Allowances
** Net Fixed Capital Formation equals Gross Fixed Capital Formation minus Depreciation.
*** Estimates for the two most recent years are based respectively on preliminary and expected investment expenditures.

Source: Statistics Canada.

FIGURE 18

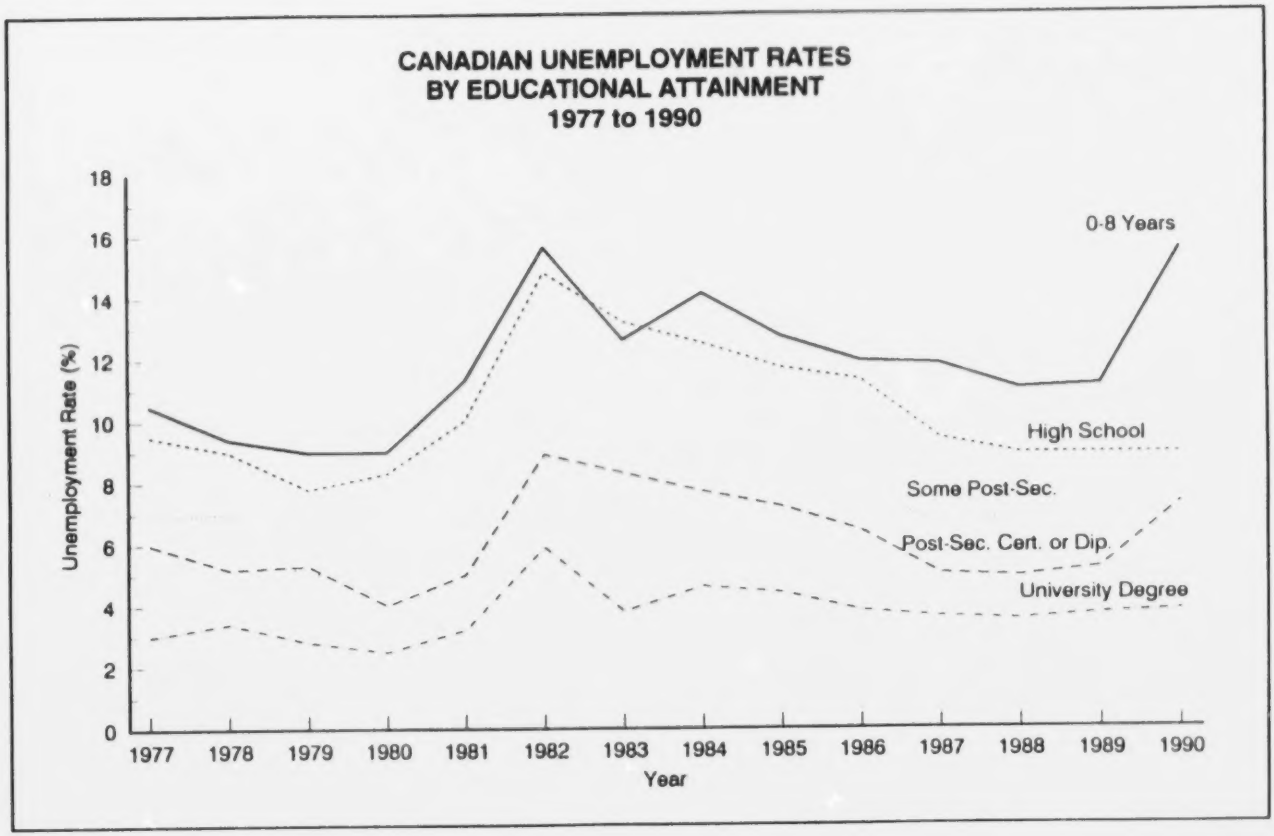
CANADIAN UNEMPLOYMENT RATES
BY EDUCATIONAL ATTAINMENT
1977 to 1990
Unemployment Rate (%)
18
16
14
12
10
8
6
4
2
0
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
Year
0-8 Years
High School
Some Post-Sec.
Post-Sec. Cert. or Dip.
University Degree

TABLE 22

CANADIAN UNEMPLOYMENT AND PARTICIPATION RATES BY EDUCATIONAL ATTAINMENT

	Unemployment Rates*														Participation** Rates
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1990
Total Canadian Labour Force	8.3%	7.9%	7.0%	7.1%	8.5%	12.7%	11.1%	10.7%	9.8%	9.3%	7.9%	7.4%	7.5%	9.3%	65.7%
0-8 Years	10.5	9.4	9.0	9.0	11.3	15.6	12.6	14.1	12.7	11.9	11.8	11.0	11.1	15.5	33.2
High School	9.5	9.0	7.8	8.3	10.0	14.8	13.2	12.5	11.7	11.3	9.4	8.9	8.9	8.9	72.5
Some Post-Secondary	6.9	7.0	4.8	6.7	6.6	11.1	11.0	9.4	8.2	7.7	6.6	6.8	7.3	9.4	69.9
Post-Secondary Certificate or Diploma	6.0	5.2	5.3	4.0	5.0	8.9	8.3	7.7	7.2	6.4	5.0	4.9	5.2	7.3	78.5
University Degree	3.0	3.4	2.8	2.4	3.2	5.9	3.8	4.6	4.4	3.8	3.6	3.5	3.7	3.8	85.0

Source: Estimates by Educational Attainment. *The Labour Force* Monthly Report. Statistics Canada.

* As of December of each year.
** Labour Force percentage of population 15 years and over.

APPENDIX

APPENDIX

UPDATE OF THE

ONTARIO UNIVERSITY NON-SALARY PRICE INDEX

The Ontario University Non-Salary Price Index was developed in 1978 to provide "a more sensitive tool to assist in measuring the likely impact of inflation on non-salary expenditure, and a more accurate measure of the extent of inflationary erosion between any two years"* The OUNSPI measures both component and global price changes for university non-salary expenditure. The components include library acquisitions, equipment and furniture, operational supplies and expenses, utilities, renovations, alterations, and major repairs, externally contracted services, travel, insurance and space rental. In 1984, the OUNSPI was revised to take account of altered patterns of expenditure.

The following tables update both the index values and the price variations to 1989-90:

- Table A-1 provides information on the annual percentage variations of components.
- Table A-2 provides an update of index values for each component based on 1980-81 being equal to 100.0.

Figure A-1 identifies the sources of information for the various components employed in OUNSPI and indicates the index weights employed for each component in the calculation of the overall, non-salary price index.

* Council of Ontario Universities, *Ontario University Non-Salary Price Index*, February 1978.

FIGURE A-1

SOURCE AND WEIGHTING PATTERN OF COMPONENT INDICES

Component	Index Weights	Source
Books	7	Bowker (U.S.) Hardcover Book Price Index, converted for Canadian dollar fluctuations.
Periodicals	7	Bowker (U.S.) Periodical Price Index, converted for Canadian dollar fluctuations.
Equipment	10	U.S. Department of Commerce. Survey of Current Business. Price index for machinery and equipment, converted for Canadian dollar fluctuations.
Computing	10	Research Associates of Washington. Higher Education Prices and Price Indexes: 1986 Update. Data processing hardware. Converted for Canadian dollar fluctuations. Statistics Canada Industrial Product Price Index - Electronic Computing and Peripheral Equipment Industry.
Furniture	2	Statistics Canada Industrial Product Price Index - Office Furniture Industries.
Stationery and Paper	8	Statistics Canada Industrial Product Price Index - Paper and Allied Product Industries.
Printing Materials	7	Statistics Canada Industrial Product Price Index - Fine Papers.
Tools and Apparatus	8	Statistics Canada Industrial Product Price Index - Hardware, Tool and Cutlery Industries.
Chemicals	4	Statistics Canada Industrial Product Price Index - Chemical & Chemical Products Industries.
Postage	3	Statistics Canada Consumer Price Index - Postage.
Long Distance	2	Statistics Canada Consumer Price Index - Communications.
Electricity	9	Statistics Canada Industry Selling Price Index - Electric Power Selling Price Index (Non-Residential) over 5,000 KW - Ontario.
Gas	7	Statistics Canada Consumer Price Index - Piped and Bottled Gas.
Oil	1	Statistics Canada Industrial Product Price Index - Heavy Fuel Oil.
Telephone	4	Statistics Canada Consumer Price Index - Communications.
Water	1	Statistics Canada Consumer Price Index - Water.
Renovations	3	Statistics Canada Construction Building Material Price Index - Non-Residential.
Transportation	3	Statistics Canada Consumer Price Index - Transportation.
Shelter	1	Statistics Canada Consumer Price Index - Shelter.
Food Away From Home	1	Statistics Canada Consumer Price Index - Food Purchased From Restaurants.
Insurance	1	Statistics Canada Consumer Price Index - Homeowner's Insurance Premiums.
Space Rental	1	Statistics Canada Consumer Price Index - Shelter.

TABLE A-1

ANNUAL PERCENTAGE VARIATION IN THE ONTARIO UNIVERSITY NON-SALARY PRICE INDEX COMPONENTS

Component	1971 - 72	1972 - 73	1973 - 74	1974 - 75	1975 - 76	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81	1981 - 82	1982 - 83	1983 - 84	1984 - 85	1985 - 86	1986 - 87	1987 - 88	1988 - 89	1989 - 90
Books	9.9	-3.7	-5.3	13.0	19.5	4.1	19.2	9.5	25.2	3.5	10.7	17.1	3.2	2.5	9.2	2.1	6.5	-1.8	0.5e
Periodicals	8.3	11.3	23.7	6.9	17.1	9.5	17.8	22.3	11.0	14.5	16.1	17.6	12.5	16.7	13.0	7.9	4.6	1.3	7.0
Equipment	1.4	0.4	5.2	19.2	13.1	4.6	16.5	15.0	11.1	12.5	15.3	7.3	2.9	9.1	5.8	0.6	-3.2	3.0	1.2
Computing	1.9	1.4	1.2	3.4	7.9	0.5	9.1	6.2	5.9	19.8	14.9	3.4	-0.2	2.6	2.2	1.9	0.0	2.7	2.2
Furniture	5.0	4.7	11.0	14.8	8.5	6.1	4.9	7.0	12.8	10.4	12.3	7.1	4.5	6.7	6.0	4.7	3.1	4.1	3.5
Stationery and Paper	1.1	2.0	20.3	33.8	9.0	3.6	5.0	9.9	17.3	14.1	9.0	-0.6	0.9	10.7	-0.5	6.9	9.9	7.5	1.4
Printing Materials	1.7	4.5	22.7	23.5	2.2	-0.7	4.2	7.2	14.2	10.0	10.3	2.6	2.7	6.7	0.1	6.0	5.2	10.7	0.0
Tools and Apparatus	3.2	2.3	6.8	16.0	10.9	6.5	11.6	10.6	16.7	14.3	11.6	8.3	4.3	5.9	5.1	3.5	3.7	6.0	3.7
Chemicals	1.1	1.8	11.0	30.5	10.0	4.2	6.0	8.7	16.7	15.0	12.7	5.0	3.3	2.7	2.1	0.1	6.1	8.7	-2.5
Postage	12.3	7.6	-	-	0.4	19.3	25.3	17.0	19.6	0.2	24.2	40.9	5.1	0.0	10.7	2.5	7.7	3.7	2.0
Long Distance	2.6	4.5	1.9	1.0	3.7	7.4	9.3	5.6	3.5	4.5	11.5	15.1	5.4	1.4	1.1	-0.6	-0.2	-2.7	-1.4
Electricity	4.9	6.9	8.0	8.2	9.4	28.3	28.3	5.3	10.4	11.7	9.8	9.7	8.3	8.1	6.5	4.6	5.5	5.4	4.1
Gas	1.5	0.4	4.9	12.4	25.8	22.1	15.6	14.6	5.5	17.9	26.5	22.0	5.0	1.4	0.0	-0.6	-1.9	-2.5	-5.7
Oil	11.7	-3.3	54.4	52.1	10.1	18.5	20.8	14.8	26.8	22.4	24.6	7.4	13.7	11.9	-5.2	-37.6	12.7	-15.2	13.2
Telephone	2.6	4.5	1.9	1.0	3.7	7.4	9.3	5.6	3.5	4.5	11.5	15.1	5.4	1.4	1.1	-0.6	-0.2	-2.7	-1.4
Water	-	-	-	7.7	8.5	12.3	11.7	7.6	7.3	8.3	12.4	11.7	6.7	6.5	6.5	3.1	2.2	7.2	8.1
Renovations	4.4	5.2	11.9	19.0	5.5	5.6	6.8	11.1	15.1	9.4	9.7	4.8	4.6	3.3	4.4	5.0	4.8	5.5	2.3e
Transportation	3.9	1.8	5.0	11.0	12.2	9.2	6.0	6.6	11.4	14.4	18.1	10.7	4.7	3.9	5.0	2.0	4.4	1.9	5.8
Shelter	5.3	6.0	6.5	7.7	9.7	10.9	8.5	6.7	5.5	7.6	12.5	11.0	5.7	3.8	3.5	3.3	4.7	4.9	6.0
Food Away From Home	4.5	7.6	15.7	18.4	11.9	7.4	5.3	8.7	12.1	8.5	9.9	9.6	4.5	4.0	4.3	4.9	3.6	5.2	5.1
Insurance	28.5	20.9	22.4	13.2	26.0	21.2	12.2	5.9	5.8	8.9	20.0	8.4	5.6	2.8	5.4	10.5	13.0	8.7	6.8
Space Rental	5.3	6.0	6.5	7.7	9.7	10.9	8.5	6.7	5.5	7.6	12.5	11.0	5.7	3.8	3.5	3.3	4.7	4.9	6.0

e = estimated figure

TABLE A-2

COMPONENT PRICE INDICES IN THE ONTARIO UNIVERSITY NON-SALARY PRICE INDEX
(BASED ON THE FISCAL YEAR 1980-81 = 100.0)

Component	1970 - 71	1971 - 72	1972 - 73	1973 - 74	1974 - 75	1975 - 76	1976 - 77	1977 - 78	1978 - 79	1979 - 80	1980 - 81	1981 - 82	1982 - 83	1983 - 84	1984 - 85	1985 - 86	1986 - 87	1987 - 88	1988 - 89	1989 - 90
Books	42.0	46.1	44.4	42.0	47.5	56.8	59.1	70.5	77.2	96.6	100.0	110.7	129.6	133.8	137.2	149.8	153.0	162.9	160.0	160.7e
Periodicals	26.7	29.0	32.2	39.8	42.6	49.9	54.6	64.3	78.7	87.4	100.0	116.1	136.5	153.6	179.3	202.7	218.6	228.6	231.6	247.8
Equipment	39.6	40.1	40.3	42.4	50.5	57.1	59.7	69.6	80.0	88.9	100.0	115.3	123.6	127.2	138.8	146.9	147.8	143.0	147.3	149.0
Computing	58.0	59.1	60.0	60.7	62.7	67.7	68.0	74.2	78.8	83.5	100.0	114.9	118.8	118.6	121.6	124.3	126.6	126.7	130.1	133.0
Furniture	44.4	46.6	48.8	54.1	62.1	67.4	71.5	75.0	80.3	90.5	100.0	112.3	120.3	125.7	134.1	142.1	148.8	153.4	159.8	165.3
Stationery and Paper	34.5	34.9	35.6	42.8	57.3	62.4	64.7	68.0	74.7	87.6	100.0	109.0	108.4	109.3	121.0	120.4	128.7	141.5	152.0	154.2
Printing Materials	43.6	44.4	46.4	56.9	70.3	71.8	71.3	74.2	79.6	90.9	100.0	110.3	113.2	116.2	124.0	124.2	131.6	138.5	153.3	153.4
Tools and Apparatus	39.3	40.6	41.5	44.3	51.4	57.1	60.7	67.8	74.9	87.5	100.0	111.6	120.9	126.1	133.5	140.2	145.1	150.5	159.5	165.3
Chemicals	37.9	38.3	39.0	43.3	56.4	62.1	64.7	68.6	74.5	86.9	100.0	112.7	118.3	122.2	125.6	128.2	128.3	136.1	148.0	144.3
Postage	39.3	44.2	47.5	47.5	47.5	47.7	56.9	71.3	83.4	99.8	100.0	124.2	175.0	183.9	183.9	203.7	208.8	224.9	233.3	238.1
Long Distance	65.2	66.9	69.9	71.2	72.0	74.6	80.2	87.6	92.5	95.7	100.0	111.5	128.4	135.3	137.1	138.6	137.7	137.5	133.7	131.8
Electricity	32.7	34.3	36.6	39.6	42.8	46.8	60.0	77.0	81.1	89.5	100.0	109.8	120.5	130.5	141.1	150.2	157.2	165.9	174.9	182.0
Gas	32.9	33.4	33.5	35.1	39.5	49.7	60.7	70.2	80.4	84.8	100.0	126.5	154.3	162.0	164.3	164.3	163.3	160.2	156.2	147.3
Oil	14.0	15.7	15.2	23.4	35.6	39.2	46.5	56.2	64.5	81.7	100.0	124.6	133.8	152.2	170.3	161.5	100.7	113.5	86.3	108.9
Telephone	65.2	66.9	69.9	71.2	72.0	74.6	80.2	87.6	92.5	95.7	100.0	111.5	128.4	135.3	137.1	138.6	137.7	137.5	133.7	131.8
Water	54.5	54.5	54.5	54.5	58.7	63.7	71.6	80.0	86.0	92.3	100.0	112.4	125.5	134.0	142.8	152.1	156.8	160.2	171.8	185.6
Renovations	41.1	42.9	45.1	50.5	60.0	63.4	66.9	71.5	79.4	91.4	100.0	109.7	115.0	120.2	124.2	129.6	136.1	142.7	150.5	153.9e
Transportation	46.0	47.7	48.6	51.1	56.7	63.6	69.5	73.7	78.5	87.4	100.0	118.1	130.7	136.7	142.1	149.2	152.1	158.7	161.7	171.0
Shelter	48.9	51.4	54.5	58.1	62.6	68.6	76.1	82.6	88.1	93.0	100.0	112.5	124.8	131.9	136.9	141.7	146.3	153.2	160.7	170.4
Food Away From Home	38.8	40.5	43.6	50.4	59.7	66.8	71.8	75.6	82.2	92.1	100.0	109.9	120.4	125.8	130.9	136.5	143.2	148.4	156.1	164.0
Insurance	22.2	28.6	34.5	42.3	47.8	60.3	73.0	82.0	86.8	91.9	100.0	120.0	130.1	137.3	141.2	148.8	164.5	185.8	201.9	215.7
Space Rental	48.9	51.4	54.5	58.1	62.6	68.6	76.1	82.6	88.1	93.0	100.0	112.5	124.8	131.9	136.9	141.7	146.3	153.2	160.7	170.4

e = estimated figure